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PERSONAL.

Mr. John W. Hill, M. Am. Soc. C. E., of Cincinnati, O., has been appointed Consulting Engineer to the Director of Public Works of Philadelphia, Pa.

Mr. Robert Fellinger, Engineer of the firm of Siemens & Halske, Vienna, Austria, is visiting America for the purpose of purchasing machine tools required by his company.

Mr. E. L. Corthell, M. Am. Soc. C. E., has been appointed Consulting Engineer on Rivers and Harbors to the Argentine Government. Mr. Corthell left on March 24 for Buenos Ayres, via Europe.

Mr. James Mack, Chief Engineer of the Coulter & Huff Coal Co., has tendered his resignation to accept a position as Superintendent of the Standard works of the H. C. Frick Coke Co. at Mt. Pleasant, Pa.

Mr. R. E. Hardaway has resigned as Chief Engineer of the Chattanooga, Rome & Southern Ry., to accept the position of Chief Engineer of the Georgia Pine Ry., surveys for which are now being made.

Mr. Jno. T. Simpson, formerly with the Terry & Tench Construction Co. and lately Assistant Engineer of the Hay Foundry & Iron Works, of Newark, N. J., has been appointed Chief Engineer of the latter company.

Mr. R. S. Riser, M. Am. Soc. C. E., has resigned his position as Construction Engineer of the Pennsylvania Bridge Co., and has accepted the position of Chief Engineer of the New Columbus Bridge Co., of Columbus, O.

Mr. H. C. Nutt, Assistant Division Superintendent of the Sheridan Division of the Burlington & Missouri River R. R., has been transferred to Burlington, Iowa, with the position of Assistant General Superintendent of the Chicago, Burlington & Quincy R. R.

Mr. J. J. McVean, Chief Engineer of the Grand Rapids District of the Pere Marquette R. R. and Mr. George M. Brown, Chief Engineer of the Saginaw Division, have resigned their respective positions. Mr. Brown will devote his time to the interests of the Campbell & Brown Lumber Co.

Mr. S. Le T. Deyo, M. Am. Soc. C. E., Engineer of the Western District of the New York, New Haven & Hartford R. R., has accepted the position of Engineer-in-Chief of the Rapid Transit Subway Construction Co., of New York city, contractors for the Rapid Transit railway. Mr. Deyo was born in Gardner, N. Y., in 1850, and graduated from Union College, Schenectady, N. Y., in 1870. Since then he has been engaged in railway engineering, chiefly on lines connected with the Vanderbilt system.

OBITUARY.

Mr. Stephen P. M. Tasker, Mechanical Engineer, died at his home in New York city on March 19. At one time he was a member of the firm of Morris & Tasker, iron founders.

Mr. Charles H. Coster, a prominent railway financier and a member of the banking house of J. P. Morgan & Co., of New York city, died on March 13 at his home in that city.

Mr. John C. Murphy, a mining engineer, died of apoplexy on March 15 at Bellevue Hospital, New York city. Mr. Murphy graduated from the School of Mines of Columbus University in 1877.

Mr. Arthur D. Wilson died on March 13 at the Municipal Hospital of Pittsburg, Pa., of leprosy. It is supposed that he contracted the disease while engaged in civil engineering work in Brazil 20 years ago.

Mr. John L. Shaw, Superintendent of the Electric Light and Water-Works at Grand Rapids, Mich., died at his home in that city on March 18. From 1850 to 1870 Mr. Shaw was actively engaged in railway engineering.

General Zealous Bates Tower, U. S. A., died on March 21 at Cohasset, Mass. Gen. Tower graduated from West Point in 1841 and entered the engineer corps. He was several times brevetted for his services in the Mexican War and was promoted for gallantry during the Civil War. He retired from the army in 1874 with the rank of Colonel of Engineers, and the brevet rank of Major General.

Mr. Leverett H. Clarke, at one time Chief Engineer of the Illinois Central R. R., and later Chief Engineer of the Lake Shore & Michigan Southern Ry., died in Chicago March 20. He was born in Becket, Mass., in 1830, was engaged on the engineer corps of the I. C. R. R. in 1852, and was made Division Engineer and then Chief Engineer in 1860. He was Chief Engineer of the L. S. & M. S. Ry. in 1877, and was made Consulting Engineer of that road in 1887. He was engineer in charge of the joint track elevation work of the L. S. & M. S. Ry., and the C., R. I. & P. Ry., but resigned about a year ago on account of ill health. This work was described in our issues of Feb. 22 and March 1, 1900. Mr. Clarke was City Engineer of Chicago in 1892.

ENGINEERING SOCIETIES.

COMING GENERAL MEETINGS.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 15 to 18. Spring meeting at Cincinnati, Ohio. Secy., F. R. Hutton, 12 W. 31st St., New York city.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
May 16 to 18. Annual meeting at Philadelphia, Pa. Secy., Ralph W. Pope, 26 Cortlandt St., New York city.

INTERNATIONAL MINING CONGRESS.
June 19 to 23. Annual meeting at Milwaukee, Wis. Secy., Irwin Mahan, Sentinel Building, Milwaukee, Wis.

COMING LOCAL MEETINGS.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
April 2. At Buffalo. Secy., G. C. Diehl, 836 Ellicott Square, Buffalo, N. Y.

WESTERN SOCIETY OF ENGINEERS.
April 4. At Chicago, Ill. Secy., Nelson L. Litten, Monadnock Blk., Chicago, Ill.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
April 4. At New York. Secy., C. W. Hunt, 220 W. 57th St., New York city.

ENGINEERS' CLUB OF ST. LOUIS.
April 4. Secy., Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.

ENGINEERS' CLUB OF MINNEAPOLIS.
April 5. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

CHICAGO ELECTRICAL ASSOCIATION.
April 6. Secy., Cloyd Marshall, 1310 Monon Bldg., Chicago, Ill.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
April 6. At San Francisco. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

ENGINEERS' CLUB OF COLUMBUS.
April 7. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.
April 7. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

LOUISIANA ENGINEERING SOCIETY.
April 9. At New Orleans, La. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
April 10. Secy., Arthur A. Skeels, Case Library Bldg., Cleveland, O.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.—At the last annual convention a committee was appointed to investigate the question as to whether concrete is a suitable and desirable material for bridge piers and abutments, and railway culverts and arches. A circular containing a list of questions bearing on this subject has been issued, in order to obtain information on these points. Communications on this subject should be sent to Mr. W. A. Rogers, Engineer of Permanent Construction, Bridge and Building Department, Chicago, Milwaukee & St. Paul Ry., Chicago, Ill.

WESTERN RAILWAY CLUB.—At the meeting held at the Auditorium, Chicago, on March 20, Mr. Ira C. Hubbell, Purchasing Agent of the K. C., P. & G. Ry., read a paper on "Purchasing by Specification," which called forth considerable discussion on the purchasing of railway supplies, and methods of testing the quality and guaranteeing the quality of the supplies. This was followed by a short paper on "A Bending Test of an M. C. B. Diamond Truck Frame," by Prof. C. V. Kerr, of the Armour Institute of Technology. As the failure was by shearing of the column bolts, it was recommended that the attachment of the upper and lower arch bars should be more secure, either by riveting or countersunk bolts, or by bending the end of the lower bar around the end of the upper bar.

WESTERN SOCIETY OF ENGINEERS.—At the meeting on March 21, an exceptionally interesting and valuable paper was read by Mr. Octave Chanute, on "The Preservative Treatment of Timber," in which he described the processes in practical use in this country and abroad, and gave particulars as to the results. Creosoting appears to be the most completely successful process, but its cost is, in many cases, prohibitive, and the zinc process now being largely used in this country and in Germany, etc., is probably the most economically successful system. The vulcanizing process has been shown to be based on erroneous ideas. An abstract was given of the German specifications for the zinc process, and samples of treated wood were exhibited, together with nails for marking the date at which ties are laid, and creosoted felt tie-plates used in France. Mr. Chanute took occasion to point out the great desirability of introducing some rail fastening superior to the common spike. The paper was followed by an extended discussion.

BOSTON SOCIETY OF CIVIL ENGINEERS.—The annual meeting of the Boston Society of Civil Engineers was held on Wednesday, March 21. As a result of the letter ballot, the following officers were elected: President, Alexis H. French; Vice-President, Frank W. Hodgdon; Secretary, S. Everett Tinkham; Treasurer, E. W. Howe; Librarian, Louis F. Cutter; Director, Ira N. Hollis. The annual reports of the Board of Government and of the various officers and committees showed the society to be in a very satisfactory condition.

The retiring President, Prof. C. Frank Allen, then delivered his annual address. He called especial attention to the advances in engineering in the last 20 years, and to the growth of engineering societies in the same time. The advance in the profession he ascribed to three causes: Engineering colleges, engineering societies, and engineering periodicals, in the order named. It should be considered the duty of engineers in the higher grades to advance the esteem in which the profession is held by refusing inadequate compensation themselves, and by seeing that assistants in the lower grades receive a fair compensation.

NEW PUBLICATIONS.

THE CONSTRUCTION OF COUNTY ROADS AND BRIDGES.—An Address Prepared for the Good Roads Club of Brazos County, Texas, July 22, 1899. By J. C. Nagle, Professor of Civil Engineering in the Agricultural and Mechanical College of Texas, College Station, Tex. Paper; 6 x 9 ins.; pp. 14.

This was a sensible address on the subject indicated, containing many good and practical points.

U. S. GEOLOGICAL SURVEY.—19th Annual Report. 1897-98. Charles D. Walcott, Director. Part III., Economic Geology. Washington, D. C. Cloth; 11¼ x 7⅞ ins.; pp. 785; illustrated and with folding maps.

Contents: "The Crystal Falls Iron-Bearing District of Michigan," by G. M. Clements, H. L. Smyth, W. S. Bayley and C. R. Van Hise; "The Slate Belt of Eastern New York and Western Vermont," T. N. Dale; "The Coos Bay Coal-Field, Oregon," G. S. Diller; "The Titaniferous Iron Ores of the Adirondacks," G. F. Kemp; "Geology of the McAlester-Lehigh Coal-Field, Indian Territory," J. A. Taff, David White and G. H. Girty; "Geology and Mining Industry of the Tintic District, Utah," G. W. Tower, Jr., and G. O. Smith.

IOWA ENGINEERING SOCIETY.—Proceedings of the Eleventh Annual Meeting, held at Iowa City, Jan. 18, 19, 1899. E. P. Boynton, Secretary-Treasurer, Cedar Rapids, Ia. Paper; 8⅝ x 5⅞ ins.; pp. 138; illustrated. 50 cts.

Contents: Address of President C. P. Chase; "The Contamination of Water Supply and its Standards," Dr. L. W. Andrews; "The Public Roads of Linn County," J. H. Lary; "A Puzzling Problem," Seth Dean; "The Uses of Cement," B. Schreiner; "How to Succeed," P. I. Peterson; "A Photographic Study of Fire Streams," Anson Marston; "Methods of Relief Map Construction," F. G. White; "A Study of Methods of Water Measurements," C. S. Magowan; "The Metric System of Weights and Measures," B. Schreiner; "Experiments in Testing Fire Brick," A. Marston and G. H. Wykoff; "The Bacteriology of Water," Dr. W. L. Bierring; "Pure Water, its Value and Attainment," A. V. Sims; "The Advisability of Legislative License for Engineers," S. N. Williams; Reports of Officers and Committees, Membership Roll, etc.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

MOTORS AND GENERATORS.—B. F. Sturtevant Co., Boston, Mass. Paper; 8 x 10 ins.; pp. 4; illustrated.

Four-pole machines for direct currents are described in this catalogue. Tables of weights, dimensions and prices are given.

NUT LOCK.—Fortuna Mfg. Co., 30 La Salle St., Chicago, Ill. Paper; 3¼ x 6¼ ins.; pp; folder.

The Fortuna nut lock is of the spiral type, and is said to be in use on a number of railway cars. An examination of these cars showed that all the nuts were tight.

DIRECT-CURRENT MOTORS.—Bullock Electric Co., Cincinnati, Ohio. Paper; 6 x 9 ins.; pp. 12; illustrated.

This is Bulletin No. 32a of the above company. It gives a full description with dimensions and prices of the direct-current multipolar motors manufactured by them.

ELECTRIC FAN MOTORS.—The Emerson Electric Mfg. Co., St. Louis, Mo. Paper; 4½ x 7 ins., pp. 56; illustrated.

This is catalogue 2,110 of the above company. It describes desk-fans, ceiling-fans and exhaust-fans. The motors are designed to use single-phase alternating currents.

INSERTABLE JOINTS FOR SOIL PIPE.—Nason Mfg. Co., 71 Beekman St., New York city. Small paper folder; illustrated.

This folder describes a short length of cast-iron pipe with a very deep socket, used to facilitate the insertion of new lengths in old runs of soil pipe without springing the run out of line.

SPIKE AND BOLT PULLER.—Welsh Mfg. Co., 9 Richards St., Brooklyn, N. Y. Paper; 3¼ x 6¼ ins.; pp. 4.

This device is a special form of clawbar, with spring jaws which grip the spike or bolt as the lever is pulled over, while a heel bearing on the lever or bar insures that the spikes are pulled straight. The device was described in our columns some time ago.

THE COMET CRUSHER.—Fraser & Chalmers, Chicago, Ill. Paper; 6 x 9 ins.; pp. 58; illustrated.

The "Comet" crusher is of the gyrating type, with a crushing cone on a vertical shaft and running in a shell lined with hard wearing iron or steel. The machine is illustrated and described in detail, and a number of testimonials are given as to its service.

AIR-COMPRESSORS.—New York Air Compressor Co., 120 Liberty St., New York City. Paper; 9 x 6 ins., pp. 40; illustrated.

This catalogue contains illustrations and descriptions of air-compressors actuated by steam, gas or gasoline engines, belts or water wheels. There are also many hints of value to users of compressed air.

VALVE RESEATING MACHINES.—The Leavitt Machine Co., Orange, Mass. Paper; 7 x 4 ins.; pp. 46; illustrated.

This company manufactures the Morse & Dexter valve reseating machines, by means of which valve seats can be trued up without removing the same from their permanent positions. The pamphlet is illustrated with views of ships in the United States Navy on which this machine is employed.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened	Work.	Place.	See Eng. News.
Mar. 29.	Gravel and sand,	New York, N. Y.	Mar. 22
Mar. 29.	Pipe sewer,	Norwich, N. Y.	Mar. 15
	Advertised, Engineering News, Mar. 15.		
Mar. 29.	Gas lighting,	Dayton, O.	Mar. 15
	Advertised Eng. News, March 15 and 22.		
Mar. 29.	Electric lighting,	Dayton, O.	Mar. 15
	Advertised, Eng. News, Mar. 15 and 22.		
Mar. 29.	Brick sewers,	Lima, O.	Mar. 8
Mar. 30.	Paving,	Paterson, N. J.	Mar. 22
Mar. 30.	Wooden pier,	New York, N. Y.	Mar. 29
Mar. 30.	Paving, etc.,	Edgewood, Pa.	Mar. 29
Mar. 31.	Steel caisson,	New York, N. Y.	Mar. 22
Mar. 31.	Electric plant bonds,	Biwabik, Minn.	Mar. 22
Mar. 31.	Church,	Turtle Creek, Pa.	Mar. 22
Mar. 31.	Sewer bonds,	Everett, Wash.	Mar. 8
Apr. 1.	Electric plant,	Louisville, Ky.	Mar. 29
Apr. 2.	Electric plant,	Albany, N. Y.	Mar. 29
Apr. 2.	Railway construction,	Mobile, Ala.	Mar. 29
Apr. 2.	Street bonds,	Home City, O.	Mar. 29
Apr. 2.	Paving,	Chester, Pa.	Mar. 29
Apr. 2.	Sewerage system,	Hampton, Va.	Mar. 29
Apr. 2.	Steel-girder bridge,	San Antonio, Tex.	Feb. 22
	Advertised, Eng. News, Feb. 22 to Mar. 15.		
Apr. 2.	Removing wreck,	Raritan Bay, N. J.	Mar. 8
	Advertised, Eng. News, Mar. 8 to 29.		
Apr. 2.	Improvement bonds,	Albuquerque, N. Mex.	Mar. 8
Apr. 2.	Truss bridge,	Vancouver, Wash.	Mar. 22
Apr. 2.	Derrick,	New York, N. Y.	Mar. 22
Apr. 2.	Water-works,	Hubbard, Tex.	Mar. 22
Apr. 2.	Building materials,	Chicago, Ill.	Mar. 22
Apr. 2.	Improvement bonds ($100,000),	Lima, O.	Mar. 22
Apr. 3.	Electrical supplies,	Vallejo, Cal.	Mar. 22
Apr. 3.	Paving,	Amsterdam, N. Y.	Mar. 22
	Advertised, Engineering News, March 22.		
Apr. 3.	Constructing road,	Vincennes, Ind.	Mar. 22
Apr. 3.	Brick and iron pipe, etc.,	Jersey City, N. J.	Mar. 22
Apr. 3.	Wells,	Woodland, Cal.	Mar. 22
Apr. 3.	Completing state house,	Topeka, Kan.	Mar. 15
Apr. 3.	Howe truss bridge,	Port Angeles, Wash.	Mar. 15
Apr. 3.	Water filter plant,	Parkersburg, W. Va.	Mar. 15
	Advertised, Eng. News, Mar. 15 to 29.		
Apr. 3.	Electric plant,	Indianapolis, Ind.	Mar. 15
Apr. 3.	Stone or brick arch,	Marietta, O.	Mar. 8
Apr. 3.	Revenue cutter,	Washington, D. C.	Mar. 8
Apr. 3.	Paving, etc.,	Jersey City, N. J.	Mar. 29
Apr. 3.	Bridge bonds,	Jackson, Miss.	Mar. 29
Apr. 3.	Sprinkling wagons,	Salt Lake City, Utah.	Mar. 29
Apr. 3.	Bridge iron,	Grand Forks, N. Dak.	Mar. 29
Apr. 4.	Fire apparatus,	Brooklyn, N. Y.	Mar. 29
Apr. 4.	Roads,	Paoli, Ind.	Mar. 29
Apr. 4.	Steward's quarters,	Angel Island, Cal.	Mar. 15
Apr. 4.	Court house,	Macon, Ga.	Mar. 15
Apr. 4.	Deep-sea cable (132 mls.),	Washington, D.C.	Mar. 15
Apr. 4.	Removing water-works,	La Grange, Tex.	Mar. 22
Apr. 4.	Paving, etc.,	Sausalito, Cal.	Mar. 22
Apr. 5.	Park supplies,	New York, N. Y.	Mar. 29
Apr. 5.	Water-works,	Fort Flagler, Wash.	Mar. 29
Apr. 5.	Steel bridge,	Jersey City, N. J.	Mar. 29
Apr. 5.	Altering court house,	Nevada City, Cal.	Mar. 15
Apr. 5.	Electric plant,	Flandreau, S. Dak.	Mar. 15
Apr. 5.	Repairing dikes,	New York, N. Y.	Mar. 8
	Advertised, Eng. News, Mar. 8 to 29.		
Apr. 6.	Paving,	Moline, Ill.	Mar. 29
Apr. 6.	Fog bell, etc.,	Cleveland, O.	Mar. 29
Apr. 6.	Macadam roads,	Bloomfield, Ind.	Mar. 29
Apr. 6.	Highway,	Huntington, N. Y.	Mar. 29
	Advertised, Engineering News, Mar. 29.		
Apr. 6.	Water pipe,	Milwaukee, Wis.	Mar. 29
Apr. 6.	Bridge,	Jasper, Ala.	Mar. 22
Apr. 7.	Sewers,	Boston, Mass.	Mar. 22
	Advertised, Eng. News, Mar. 22 and 29.		
Apr. 7.	Extending storehouse,	Port Royal, S. C.	Mar. 22
Apr. 7.	Cement, sand, etc.,	Washington, D. C.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 7.	Y. M. C. A. building,	Winnipeg, Man.	Mar. 29
Apr. 7.	Masonry bridge,	Winnipeg, Man.	Mar. 29
Apr. 7.	Garbage disposal,	Allegheny, Pa.	Mar. 29
Apr. 7.	Steel bridge and abutments,	Nottingham, O.	Mar. 29
Apr. 9.	Fire escape,	Kings Park, N. Y.	Mar. 29
	Advertised, Engineering News, Mar. 29.		
Apr. 9.	Macadam roads,	Veray, Ind.	Mar. 29
Apr. 9.	Steel bridges (2),	Atwood, Ont.	Mar. 29
Apr. 9.	School house bonds,	Kalispell, Mont.	Mar. 29
Apr. 9.	Keeper's house,	Columbus, S. C.	Mar. 29
Apr. 9.	Buildings,	Topeka, Kan.	Mar. 15
Apr. 9.	Jail,	New Orleans, La.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 9.	Hospital,	Tomah, Wis.	Mar. 22
Apr. 10.	Pier superstructure,	Duluth, Minn.	Mar. 22
	Advertised, Eng. News, Mar. 22 to Apr. 5.		
Apr. 10.	Air-lift pumps, etc.,	Washington, D. C.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 10.	Street work,	New York, N. Y.	Mar. 29
Apr. 10.	Electrical machinery,	Pulaski City, Va.	Mar. 29
	Advertised, Engineering News, Mar. 29.		
Apr. 10.	Paving,	Chillicothe, O.	Mar. 29
Apr. 10.	Bridge superstructure,	Wyant, Ill.	Mar. 29
	Advertised, Eng. News, Mar. 29 and April 5.		
Apr. 10.	Court house,	Mineola (L. I.), N. Y.	Mar. 29
Apr. 10.	Hotel,	New Ulm, Minn.	Mar. 29
Apr. 10.	Court house,	Camilla, Ga.	Mar. 29
Apr. 10.	Garbage crematory,	Canton, O.	Mar. 8
Apr. 10.	High school,	New Ulm, Minn.	Mar. 8
Apr. 11.	Sewers,	Genoa, Neb.	Mar. 29
Apr. 11.	Hardware, etc.,	Winnipeg, Man.	Mar. 29
Apr. 11.	Paving, etc.,	Cohoes, N. Y.	Mar. 22
	Advertised, Engineering News, March 22.		
Apr. 12.	Paving,	Williamsport, Pa.	Mar. 22
	Advertised, Engineering News, March 22.		
Apr. 12.	Removing rocks, etc.,	Portland, Me.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 12.	Street improvements,	Cincinnati, Ohio.	Mar. 29
Apr. 12.	Heating plant,	New York, N. Y.	Mar. 29
Apr. 12.	School,	South Hadley Falls, Mass.	Mar. 29
Apr. 13.	Grading,	Washington, Pa.	Mar. 29
Apr. 13.	Store house, etc.,	Newport, R. I.	Mar. 15
	Advertised, Eng. News, Mar. 15 to 29.		
Apr. 14.	Dipper dredge,	Montgomery, Ala.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 12.	Drainage ditch,	Wooster, O.	Mar. 22
Apr. 13.	Sidewalks,	Pontiac, Mich.	Mar. 15
Apr. 14.	School house,	Niagara, N. Dak.	Mar. 22
Apr. 14.	Pumping station,	Brooklyn, N. Y.	Mar. 29
Apr. 14.	Reservoir,	Salt Lake City, Utah.	Mar. 29
	Advertised, Eng. News, Mar. 29 and April 5.		
Apr. 14.	Store house,	Philadelphia, Pa.	Mar. 29
Apr. 15.	Hotel,	Fort Jones, Cal.	Mar. 29
Apr. 15.	Grading railway (43 mls.),	West Virginia.	Mar. 15
	Advertised, Eng. News, Mar. 15 and 22.		
Apr. 16.	Garbage crematory,	Honolulu, H. I.	Mar. 29
Apr. 16.	Culverts,	Chicago, Ill.	Mar. 15
	Advertised, Eng. News, Mar. 15 to Apr. 5.		
Apr. 16.	Plans for asylum,	Whitby, Ont.	Mar. 22
Apr. 16.	Improvement bonds ($50,000),	Ogden, Utah.	Mar. 22
Apr. 16.	Dredging,	New London, Conn.	Mar. 22
	Advertised, Eng. News, Mar. 22 to Apr. 12.		
Apr. 16.	Fire alarm system,	Winnipeg, Man.	Mar. 29
Apr. 16.	Electric plant,	Crystal Springs, Miss.	Mar. 29
	Advertised, Eng. News, Mar. 29 and April 5.		
Apr. 16.	Sewerage system,	Newport, Pa.	Mar. 29
	Advertised, Eng. News, Mar. 29 and April 5.		
Apr. 16.	Street bonds,	Oakley, O.	Mar. 29
Apr. 16.	Water-works, etc.,	Crystal Springs, Miss.	Mar. 29
	Advertised, Eng. News, Mar. 29 and April 5.		
Apr. 16.	Brick sewers,	Toledo, O.	Mar. 29
Apr. 17.	Breakwater,	Cleveland, O.	Mar. 29
Apr. 17.	Water bonds,	Johnstown, N. Y.	Mar. 29
Apr. 17.	Lock gate,	St. Paul, Minn.	Mar. 22
	Advertised, Eng. News, Mar. 22 to Apr. 12.		
Apr. 17.	Wells, (16),	Lafayette, Ind.	Mar. 15
Apr. 17.	Pumping engines (4),	Cincinnati, O.	Feb. 8
	Advertised, Jan. 25, Feb. 1, 22, Mar. 8-22.		Apr. 5.
No date.	Lighting contract,	Petersburg, Va.	Mar. 22

RAILWAYS.

(For foreign railway news see under "Foreign Contract and Export News.")

ALASKA.—The Cape Nome & Galaflin Bay Ry. & Navigation Co. has been incorporated in Washington, with $10,000,000 capital stock, by James Naden, St. Paul, Minn.; James B. Rowlings, Nome, Alaska, and E. F. Adams, Seattle.—Plans for building 150 miles of railroad to connect Nome City and Port Safety with Port Clarence, are being perfected, according to reports. Surveys are being made. J. S. Kimball & Co., San Francisco, Cal., are interested.

ALASKA & RUSSIA.—Reported as incorporated in New Jersey, with $100,000 capital stock, to build a railway. J. Parker, C. W. Perkins and K. K. McLaren are the incorporators.

CAIRO & TENNESSEE RIVER.—Surveys and estimates for this line, extending from Cairo, Ill., to Cumberland Gap, Ky., about 475 miles, have been completed. Most of the rights of way and terminals have been obtained. Correspondence with contractors and parties to help finance the enterprise is solicited by B. A. Neale, Pres., Mayfield, Ky.

CHICAGO, BURLINGTON & QUINCY.—Press reports state that the contract for grading the line from Toluca, Mont., to Cody City, Wyo., about 250 miles, has been let to Kilpatrick Bros. & Collins, Beatrice, Neb. About $2,000,000 has been appropriated for this line, which will tap a newly developed irrigated district. W. L. Breckenridge, Ch. Engr., Chicago, Ill.

CHICAGO, RICHMOND & MUNCIE.—This company has been incorporated in Indiana with $50,000 capital stock to build a road from the points named, which will ultimately be extended to Chicago. The council of Richmond has granted a franchise to the company to run through the city.

CHICAGO, SPRINGFIELD & ST. LOUIS.—It is reported that a road of this name will build a line from Scottsville to Staunton, Ill., through the coal district. The new line will follow the abandoned right of way of the Baltimore & Ohio R. R. for a part of the distance.

CHICAGO & WEST WISCONSIN.—J. L. Pennifill, Pres., 297 Quincy Bldg., Chicago., Ill., informs us that the construction of 75 miles of this proposed road, from Ripon to Grand Rapids, Wis., will be started in June, the construction to be done by the company. Preliminary surveys for the entire line, 125 miles, standard gage, have been made.

CINCINNATI, RICHMOND & MUNCIE.—This company is reported to have been incorporated in Indiana to build a railway, securing a short line between Cincinnati and Chicago. Subsidies are said to have been received from Muncie, Richmond and other towns en route.

COCHITI & NORTHWESTERN.—Incorporated in New Mexico to construct a road from Thornton to Bland, in the Cochiti mining district, about 40 miles. The capital stock is $1,500,000. Joseph E. Gillespie, New York; Chas. J. Bartleson, Minneapolis, Minn.; John S. Thompson, Thornton, N. M., are interested.

EAST TENNESSEE & WESTERN NORTH CAROLINA.—It has been decided to extend the road from Lanberry to Lincolnton, N. C., about 75 miles. The road will penetrate the iron ore district in western North Carolina. R. F. Hoke, Pres., Raleigh, N. C.

ESCANABA & LAKE SUPERIOR.—Reports from Michigan state that this company has been absorbed by the Chicago, Milwaukee & St. Paul, who will probably extend the road to Channing, Mich., 40 miles, to connect with the main line. Daniel Mills, Jr., Milwaukee, is the owner of the line.

FARGO, DULUTH & NORTHWESTERN.—This company has been incorporated in North Dakota to build a railway from Elbow Lake, Minn., through Cass, Thraill, Steele, Nelson and Ramsey counties. J. W. Smith, Pres., Fargo, N. Dak.

FISH CREEK.—Incorporated in West Virginia to build a railway from Littleton to Moundsville. The capital stock is $20,000. Joseph K. Graham, James M. Bennett and Henry M. Russell, Wheeling, are the incorporators.

FORT WORTH, CORSICANA & SABINE PASS.—This company has been incorporated in Texas to build a line from Fort Worth to Sabine Pass, via Corsicana, about 320 miles. Chas. H. Allyn, F. C. Hand, Corsicana, and B. B. Paddock, Fort Worth, are interested.

FRANKLIN TERMINAL.—This company has been incorporated with $20,000 capital stock to construct and operate railway terminals. T. J. Redman, W. W. Fare, J. R. Little, Franklin, are interested.

INDIANA & OHIO.—W. S. Adams, Secy. and Treas., 18 Falls St., Niagara Falls, N. Y., informs us that surveys for this proposed line have been completed and franchises and rights of way secured. Arrangements for the construction capital are now being made. The line will be operated by steam and electricity, and will extend through Albany to Portland, Ind., about 70 miles. J. M. Gore, Pres., Indianapolis, Ind.

KANSAS CITY, OKLAHOMA & MEXICO.—Incorported in Oklahoma Territory, according to reports, with $3,000,000 capital stock, to build a line 200 miles long, from Augusta across the territory to the Red River, with several branches in the western counties, connecting with the proposed road from the Missouri River to the western coast of Mexico. A. E. Stillwell, Kansas City, Mo.; W. E. Edwards, Larned, Kan., and H. K. Ricker, El Reno, Okla. Ter., are interested.

KANSAS CITY & SOUTHERN.—Incorporated in Missouri, with $51,000,000 capital stock, to build a railway from Kansas City to Mena, Ark., 380 miles. John W. Gates, Chicago; E. H. Harriman, New York, and Julius S. Walsh, St. Louis.

MISSOURI, KANSAS & TEXAS.—Surveys for the extension of this line from Mineral to Webb City are nearing completion. The new road will give an outlet to Kansas City and St. Louis from the mining district. S. B. Fisher, Ch. Engr., St. Louis, Mo.

MANISTEE & GRAND RAPIDS.—Contracts will probably be let soon for grading an extension of this line from a point beyond Luther to Tustin, Mich., about 9 miles. The company has previously done its own grading, but will let part of the contract to complete the work at an early date. E. W. Muenscher, Ch. Engr., Manistee, Mich.

MOBILE & OHIO.—Bids are asked until April 2 for constructing an extension on the Blocton branch of this road, about 1½ miles in length. The work will include clearing, grubbing, graduation, trestling, pipe drains and culverts. Henry Fonde, Div. Supt., Mobile, Ala.—The St. Louis & Cairo R. R. has been purchased by this company.

NORFOLK & WESTERN.—A branch line from Petersburg to Richmond, Va., will probably be built by this company. J. B. Fuller, Asst. Engr., Roanoke, Va.

OREGON MIDLAND.—Press reports state that the contract for constructing 72 miles of this proposed road has been let to Dunbar & Cousins, Chicago, Ill. The Baldwin Locomotive Works, Philadelphia, Pa., are said to have received a contract for rolling stock. The line, as surveyed, will extend from Klamath River, Ore., to a point between Klamathen and Hornbrook, on the Southern Pacific R. R. The heaviest grade will be 2½%. J. A. McColl, Ch. Engr., Portland, Ore.

PACIFIC & IDAHO NORTHERN.—The surveys for an extension of this line from Cambridge, Idaho, are said to have been started. A new line will be run into Seven Devils, following up Hornet Creek, shortening the present line by several miles. Chas. D. Moore, Ch. Engr., Weiser.

PATTERSON CREEK & POTOMAC.—This company has been incorporated in West Virginia with a capital stock of $20,000 to build a road to start at the mouth of Patterson's Creek and run to a point on the boundary line between West Virginia and Maryland. Wm. C. Clayton, Keyser, and Herbert R. Preston, Baltimore, Md., are interested.

PENNSYLVANIA.—Surveys for the shipping basin at Greenville, Jersey City, N. J., are being made. The company, it is stated, has appropriated $500,000 for the improvements, which include a freight terminal. The contract for the initial improvements has been let.—A line is to be built from Blairsville, Pa., on the Western Pennsylvania toward Edensburg, passing through the coal district.—It is reported that the line between Pittsburg and Altoona is to be rebuilt, and the route shortened. The improvements will extend from Manor, east of Irwin, to the tunnel west of Greensburg, involving an expenditure of about $1,000,000.

ST. CROIX SHORT LINE.—Incorporated in Wisconsin to build a railway from Superior to St. Paul, about 50 miles in length. The capital stock is $100,000. A. L. Sanborn, F. C. Ellis and E. F. Stark, Madison, Wis., are interested.

ST. LOUIS & ARKANSAS NORTHERN.—The construction of this new line, to extend from Eureka Springs to Yellville, Ark., about 138 miles in length, is said to have been started at Eureka Springs. The road will traverse the mineral fields of northern Arkansas. It is expected to have 50 miles of the road ready for operation by October, and the line to Harrison from Eureka Springs in use by Jan. 1. R. C. Kereus and E. D. Kenna, St. Louis, Mo., are interested.

ST. LOUIS & SAN FRANCISCO.—It is stated that $1,000,000 is to be spent by this company in improving the Kansas City line.

ST. LOUIS, WELLSTON & ST. CHARLES.—The contract for extending this road west to Pattonville and thence to the Missouri River, in Missouri, has been let to the Rosedale Contracting & Supply Co., St. Louis, Mo., according to reports.

SEABOARD AIR LINE.—Southern papers report that the probable construction of a new road to extend from Chattanooga to Augusta, via Washington and Athens, Ga., to give the system another connection with the sea coast. The report is based on the recent tour of the officials of the company, who are said to be looking to the interest of the proposed line.—It is stated that the preparations for consolidation of the different lines to constitute the greater Seaboard Air Line are rapidly nearing completion.

SUNSET.—Incorporated at Bakersfield, Cal., on March 15 to build a railway to run from Gasford to the Sunset oil fields, 30 miles distant. The road will connect with the Southern Pacific's McKittrick branch at Gasford. C. N. Beal, Sol. Jewett and F. T. Whorff, Bakersville, are interested.

TEXAS MIDLAND.—It is reported that an extension of this line from Ennis, Tex., through Waco, Austin and Victoria to Alligator Point, on the Gulf of Mexico, is proposed. M. Dewall, Ch. Engr., Terrell, Tex.

TEXAS & PACIFIC.—Bids will be asked upon the completion of plans for the extensive improvements to be made to the general shops at Marshall, Tex. L. S. Thorne, Gen. Mgr., Dallas, Tex.

TUPELO, HELENA & DECATUR.—H. G. Medford, Acting Pres., Tupelo, Miss., is reported as being in New Decatur, Ala., to secure an entrance of this line into that city, and to let contracts for the construction of the road, which will extend from Decatur to Arkansas City, Ark., opening up the agricultural, mineral and timber districts en route. The road will be bonded at $5,000,000.

STREET AND ELECTRIC RAILWAYS.

(For foreign street and electric railways see under "Foreign Contracts and Export News.")

SANFORD, ME.—F. J. Allen, Sanford, informs us that the contract for constructing the electric line of the Atlantic Shore Line Ry. to run from Biddeford through Kennebunkport, Kennebunk, and Wells to York, about 30 miles, will be let about April 10. Surveys have been made and the rights of way obtained. The construction capital has been secured. Mr. Allen states that most of the construction will be done by the promoters. E. M. Goodall, Pres., and C. A. Bodwell, Ch. Engr., Sanford, Me.

BURLINGTON, VT.—Robert Avery, Vice-Pres. and Gen. Mgr., Burlington & Hinesburgh R. R. Co., is said to have purchased the Essex Junction water power, where an electric plant will be installed to generate power to operate the system.

BOSTON, MASS.—The Boston Elevated Ry. Co. is reported to have received the necessary charters from the towns of Medford and Somerville for its proposed electric road to Tufts. The construction is to be started about April 1. G. A. Kimball, Ch. Engr.

MILFORD, MASS.—The Milford, Attleboro & Woonsocket St. Ry. Co. has petitioned the street railway committee for a privilege to increase its capital stock to $500,000, to issue a like amount of bonds and to extend its tracks. W. H. Tyler, Mgr.

NEW BEDFORD, MASS.—The board of public works has granted the Union St. Ry. Co. permission to extend its tracks in this city.

ALBANY, N. Y.—The contract for building a third-rail electric railway from Hudson to Albany, about 35 miles, is reported to have been let to C. N. Blakeslee & Sons, New Haven, Conn. The project is backed by a company capitalized at $2,000,000, of which A. M. Young, Treasurer of the Connecticut Lighting & Power Co., Waterbury, Conn., is President. The northern terminal of the road will be at Greenbush, on the east side of the Hudson River, opposite Albany. The power for the road will be generated by the plant already built at Stuyvesant Falls.

BUFFALO, N. Y.—Local papers state that improvements to the service of the Buffalo & Niagara Falls Electric Ry. are to be made this spring.

WHITEHALL, N. Y.—Bids for the purchase of the Whitehall and Granville R. R. Co.'s bonds will soon be asked for. Most of the options for the right of way have been obtained, and franchises have been granted. The proposed line will run from Whitehall to West Pawlet, Vt., with a branch line from Granville, N. Y., to Lake St. Catherine, Vt., a total distance of 26 miles. Charles I. Baker, Troy, N. Y., is interested.

PITTSBURG, PA.—T. H. Latimer, Pres., informs us that bids are now being received for the construction of the Nunnery Hill St. Ry. Co.'s electric line through Allegheny, about 6 miles, and for the company's bonds.

PITTSBURG, PA.—J. Frank Peffer, Secy., 422 Fifth Ave., Pittsburg, informs us that surveys have been made for the Allegheny Valley St. Ry. Co.'s electric line, extending 30 miles, by way of towns aggregating 70,000 population, to Pittsburg, and the rights of way secured. The road is not fully financed as yet. Contracts for construction will be let about May 15. John Guffy, Pres., and F. J. Patterson, Ch. Engr., Pittsburg.

RICHMOND, VA.—Local papers state that the Richmond Passenger & Power Co. has accepted the franchise granted by the city to built street car lines in this city.

CHAPEL HILL, N. C.—It is stated that an electric line is to be built between Durham and this place. J. W. Gore, Chas. Baskervills and John R. Carr are interested.

NASHVILLE, TENN.—The People's Electric Ry. Co. has been incorporated with $100,000 capital stock to build a road about 48 miles in length in this city and suburbs.

COLUMBUS, O.—The Chillicothe, Mt. Sterling & Columbus Electric Ry. Co. has made application for permission to construct its line through this city.——The Columbus, Buckeye Lake & Newark Traction has been granted a franchise to use Mound and Third Sts., this city, for an extension of its line.

HUBBARD, O.—The council has accepted the bid of the Sharon & Youngstown St. Ry. Co. for a franchise to construct a street railway through this village.

MASSILLON, O.—The council has granted a franchise to the Barberton, Doylestown & Massillon Electric Ry. Co. for the use of certain streets in this city for a period of ten years.

TOLEDO, O.—A franchise has been granted to the Toledo Traction Co. to construct an extension to its line on East Broadway, from Earl St. to the Lake Shore.

MIDDLETOWN, IND.—The board of trustees have granted the Union Traction Co. a franchise to build its line on certain streets in this city.

DETROIT, MICH.—Milton Carmichael, Gen. Mgr., Buhl Block, Detroit, informs us that the capital for the construction of the Michigan & Ohio Electric Ry. Co.'s line, about 75 miles in length, has been provided for, and the contracts for all work will be let before June 1. The road will extend from Toledo, O., to Detroit, Mich., with a branch to Ann Arbor from Bellville, Mich. The rights of way have been secured, and surveys partly completed.

GRAND RAPIDS, MICH.—Local papers state that the stockholders of the Grand Rapids Consolidated St. Ry. propose to expend $200,000 in the improvement of the system.

NILES, MICH.—It is reported that the construction of the Northern Indiana & Southern Michigan Electric Ry. will be started this spring. The road will extend from South Bend, Ind., via Niles to Benton Harbor, Mich. J. W. Van Cleave, Pres., Detroit.

AURORA, ILL.—The town of Cicero has granted a 50-year franchise to the Aurora, Chicago & Wheaton Ry. Co. to build through the town.

DUBUQUE, IA.—The power house of the Dubuque St. Ry. was partly destroyed by fire on March 16, involving a loss reported at about $25,000.

TOPEKA, KAN.—The Topeka & Vinewood Park R. R. Co. has decided to build a main track from this city to Vinewood Park.

SEATTLE, WASH.—The electric companies of this city have been consolidated under the name of the Seattle Electric Co., capital stock $6,200,000. The new company will operate all the street railway systems, comprising about 70 miles of track and will furnish light for the city.

PORTLAND, ORE.—The Transfer Ry. Co. has asked for a franchise to lay rails on certain streets in this city.

OAKLAND, CAL.—The Oakland, San Leandro & Haywards Electric Ry. has petitioned for a franchise for an electric road on certain streets in this city, for which bids will be asked.

QUEBEC, QUE.—Arrangements for the conversion of the railway running from Quebec to La Bonne Ste. Anne into an electric line are being made, according to reports.

NIAGARA FALLS, ONT.—It is reported that the Sutherland Construction Co. proposes to change the present horse car line in this place to an electric road. J. H. Beatty, Treas., Hannibal, Mo.

PRESTON, ONT.—Reports state that the Preston & Berlin St. Ry. Co., Ltd., proposes to begin the construction of its line, giving a connection from Galt to Preston, and from Berlin to Waterloo, making a line about 15 miles in length. John Patterson, Pres., Hamilton, Ont.

ELECTRIC LIGHT AND POWER.

(For foreign electric light and power plants see under "Foreign Contracts and Export News.")

ALBANY, N. Y.—Bids are asked by the board of contract and supply until April 2 for installing a plant in the assembly hall of the high school.

BROOKLYN, N. Y.—The following bids were received March 24 for installing two 200 HP. boilers and one duplex feed pump at the electric light plant in the navy yard: Clonbrock Steam Boiler Co., N. Y., $7,045; Babcock & Wilcox Co., 29 Cortlandt St., N. Y., $8,495; Aultman & Taylor Machinery Co., Mansfield, O., $7,964; E. Rutzler, 178 Centre St., N. Y., $9,500.

ESPERANCE, N. Y.—Reports state that the Empire Power Co. has completed surveys for a dam across the Schoharie River three miles below here, to be about 40 ft. high and 250 ft. long. This company will also build several more dams in the Schoharie.

NEW BRUNSWICK, N. J.—A. Atkinson, Cy. Engr., has completed an estimate for a municipal plant, to cost $31,625, according to reports.

PLEASANTVILLE, N. J.—W. Price, Borough Clk., writes us that the people have voted in favor of electric lights, but the council has not yet taken any action.

PULASKI CITY, VA.—Bids are asked until April 10 for furnishing material and equipment for a plant, as stated in our advertising columns. J. T. Loving, Mayor.

LITTLETON, N. C.—Eugene Johnston, Secy., writes us that the Montauk Water & Electric Power Co. has applied for a charter and will receive bids about May 1 for constructing a plant, to cost about $100,000. This will be a parent company, developing about 2,500 HP. and promoting and furnishing power to its branches. J. P. Leach, Pres.

SHELBY, N. C.—It is stated that two companies have applied to the board of aldermen for franchises for plants.

ATHENS, GA.—A. H. Hodgson, J. Y. Carithers and W. T. Bryan are said to be interested in a company which proposes to build a dam in the Tallasse Shoals, in the Middle Oconee River, about 8 miles from here, and develop 1,000 HP. A plant to cost about $75,000 will be built.

BUENA VISTA, GA.—C. S. Crawford, Mayor, writes us that the city will grant a franchise to any responsible concern that wishes to build a plant. Water power can be had at about $7.50 a month.

EASTMAN, GA.—The people are said to have voted to issue $15,000 in bonds for erecting a plant and waterworks.

MONROE, LA.—The council has appointed a special committee to collect data, etc., relative to the cost of erecting a municipal plant and water-works.

CRYSTAL SPRINGS, MISS.—Bids are asked until April 16 for constructing a plant and water-works, to cost about $22,500, as stated in our advertising columns. P. Moody, Mayor.

TULLAHOMA, TENN.—The question of building a municipal plant is being discussed, according to reports.

LOUISVILLE, KY.—Bids are asked until April 1 for installing a plant in the court house. Kenneth McDonald, Arch., 349 W. Main St.

MOREHEAD, KY.—W. J. Rice writes us that the Morehead Water & Light Co. will receive bids about April 1 for erecting a plant, to furnish 24 1,000-c. p. arc and 500 16-c. p. incandescent lights.

OWENSBORO, KY.—W. P. Small, Mayor, writes us that F. F. Veter, Chicago, Ill., has prepared plans for a municipal plant, to cost about $45,000, furnishing 200 2,000-c. p. arc and 5,000 16-c. p. incandescent lights. Bids will be received the first part of April.

SHAWNEE, O.—The legislature has authorized this town to issue $25,000 in bonds for erecting a plant; the question will be voted on at the spring election.

SPENCERVILLE, O.—James Cochran, Mayor, writes us that the question of issuing bonds for erecting a plant will be voted on at the spring election.

MARION, IND.—B. F. Burk will, it is said, build a plant here.

MILWAUKEE, WIS.—Alderman Henry Smith writes us that no steps have been taken other than mentioned in our issue of March 15.

RED WING, MINN.—F. W. Steeg, St. Paul, has prepared estimates for a municipal plant, to cost about $16,500.

TOPEKA, KAN.—We are informed that bids will be received about April 15 for a plant, to cost about $7,000, to operate 100 2,000-c. p. arc lights. P. L. Wise, Cy. Engr.

INDEPENDENCE, MO.—We are informed that a new light plant is being talked of. H. H. Pendleton, Cy. Engr.

ST. LOUIS, MO.—The board of public works is said to have received bids March 20 from the following concerns for lighting the city for ten years from Sept. 1: Imperial Electric Light, Heat & Power Co., Missouri; Edison Electric Co., Wm. Jones, Laclede Gas Light Co. and A. B. Johnson.

COOPER, TEX.—Reports state that the council has granted a 50-year franchise to J. H. Gordon.

TERRELL, TEX.—J. T. Wilson, Supt., writes us that the contract for electrical machinery at the North Texas Hospital has been let.

GUTHRIE, OKLA. TER.—Quigley & Co., of Sedalia, Mo., are said to have applied for a franchise for a plant.

CASPER, WYO.—The council has granted a 25-year franchise to the Casper Electric Co., which will build a plant, to furnish 800 lamps, and cost about $15,000; C. H. King and Theodore Becker are said to be interested.

MARSHFIELD, ORE.—Reports state that the city will vote on the question of building a municipal plant.

REDDING, CAL.—F. Hurst and J. Young are said to be interested in a company which proposes to build a plant on the Pit River, to develop about 6,000 HP., and cost about $125,000.

SAN FRANCISCO, CAL.—The board of public works is said to be preparing plans, etc., for a municipal plant, and will recommend its construction in the annual report; Col. Mendell, Pres.——J. M. Marshall, D. Q. M. G., Ch. Quartermaster, U. S. A., is said to have received the following bids for a power house, etc., at the hospital Presidio: (1), power house building, catch basins, cutting, fitting repairs, etc.; (2), boilers in place; (3), pumps, heater, etc., and piping set in place; (4), illuminating apparatus, including direct connected engines and dynamos, motor, lights and wiring in power house, etc.; (5), for laundry machinery; (6), for kitchen appliances in place; (7), for motor for laundry with the necessary wiring; (8), steam heating pipes and fixtures; (9), building and concrete foundations for filtering plant; (10), filtering apparatus; (11), building cold storage room; (12), ice machine and refrigerating apparatus; (13), ventilating ducts from beds to foul air shaft and ventilating registers: John T. Long, total, $72,394; Oakland Iron Works, Oakland, (12), $2,454; Henry Vaugenheim, (10), $2,140; Charles C. Moore, (2), $7,720; Willis H. Booth, (5), $2,250; Joshua Hendy Machine Works, (5), $2,765; James H. Graham, (12), $2,549; A. A. Watkins, (6), $1,177; Risdon Iron & Locomotive Works, (12), $2,480 and $2,346; R. W. Beattie, (1), 16,854, (9), $292, (11), $552; Richard McCann, (1), $14,423 and $1,450, (9), $400, (11), $400, (13), $2,242, total $19,925; Dalziel & Matler, (3), $1,867, (8), $21,000; F. A. Gilley, (8), $23,232; Martin Fennell, (1), $13,700, (9), $490, (11), $590; Baker & Hamilton, (12), $2,750; George H. Tay Co., (2), $7,720, (3), $3,000, (6), $1,225 and $1,075, (8), $17,390, (13), $2,770; Wybro-Hendy Co., (4), $5,500, includes No. 2; Cyclops Iron Works, (12), $1,400; J. A. Margo, (6), $1,049.

SANTA CLARA, CAL.—The trustees have sold $30,000 in bonds for erecting a plant, according to reports.

YREKA, CAL.—The people are said to be discussing the question of building a municipal plant.

EPHRAIM, UTAH.—The council has directed the special committee to secure a site for a plant.

BRIDGES.

BELFAST, ME.—Mayor Poor has recommended the rebuilding of the lower bridge over the harbor.

MERRIMACK, N. H.—It is reported that a wrought-iron bridge, 108 ft. long, with a 20-ft. roadway, will be erected over the Souhegan River, to replace the one recently destroyed.

PETERBORO, N. H.—Local papers state that a committee composed of John W. Robbe, C. W. Hunter and Samuel Anderson has been appointed to build a two-arch stone bridge at West Peterboro.

QUINCY, MASS.—C. F. Knowlton, Quincy, informs us that the matter of building the proposed Quincy Point bridge is now in the legislature.

BINGHAMTON, N. Y.—S. E. Monroe, Cy. Engr., informs us that plans for the Chenango St. viaduct have been completed by the chief engineer of the Erie R. R. Co. The work will be contracted for at an early date. C. W. Buchholz, Ch. Engr., New York, N. Y.

CAZENOVIA, N. Y.—A bill has been introduced in the assembly appropriating $15,000 for the construction of a new steel bridge over the outlet of the lake at Forman St.

SUFFERN, N. Y.—It is reported that the Erie R. R. will erect two bridges in this town, to cost about $40,000.

WEST SHOKAN, N. Y.—The town board is reported to have awarded a contract to the Oswego Bridge Co., Oswego, N. Y., for constructing an iron bridge over the Esopus Creek, between Shokan and this town, at about $10,000.

JERSEY CITY, N. J.—Bids are asked until April 5 for constructing a steel bridge over the Pennsylvania R. R. cut at Baldwin Ave. John P. Egan, Clk. Bd. Chosen Freeholders.

BRADFORD, PA.—It is stated that a steel viaduct, nearly 500 ft. in height, will be needed in the construction of the proposed Pennsylvania & Buffalo Connecting R. R., recently incorporated as a branch of the Pennsylvania R. R. The bridge will be about 3,000 ft. long, and will be located in the vicinity of Lafayette, spanning a gorge.

DOYLESTOWN, PA.—Local papers state that the county commissioners are considering the advisability of building a bridge at Kaber's Ford, New Britain, and one at Warrington.

CUMBERLAND, MD.—The West Virginia Central & Pittsburg Ry. will build a bridge over Market St. to abolish the grade crossing. Edwin Mitchell, Engr., Elkins, W. Va.

JACKSON, MISS.—Bids are asked until April 3 for the purchase of $10,000 in bridge bonds. Oliver Clifton, Clk.

CINCINNATI, O.—Bids are asked until May 4 for erecting the superstructure of a steel truss bridge, connecting the Intake Pier with the Kentucky shore, as stated in our advertising columns. C. G. Roth, Clk. Bd. Trustees.

CLEVELAND, O.—It is stated that $300,000 in bonds is to be issued for the purpose of building a new viaduct to span the flats from Jennings Ave., on the South Side, to Petrie St., Newburg, along East Clark Ave., a distance of about 6,500 ft. City Engineer Ritchie has estimated that the cheapest way to make the improvement would be to build three bridges and fill in the intervening spaces, or build trestle work. About 1,000 ft. of bridging will be required by this plan.

NOTTINGHAM, O.—Bids are asked until April 7 for constructing a 58-ft. steel bridge, and two abutments, according to reports. Julius C. Dorn, Clk. Bd. County Comrs.

DETROIT, MICH.—City Engineer McCormick has estimated the cost of separating the railroad and street grades at $3,631,845. The improvement will include the construction of 43 viaducts and 76 subways.

GALESBURG, MICH.—The Kalamazoo & Battle Creek Electric Ry. will construct a bridge over the Michigan Central tracks in this place, which will be 22 ft. in height and 1,200 ft. long.

KANKAKEE, ILL.—The council on March 19 let a contract to the Geisel Construction Co., St. Louis, Mo., for constructing a concrete bridge over the Kankakee River, at $41,446.

WYANET, ILL.—Bids are asked until April 10 for constructing the superstructure of a double track railroad bridge over the Illinois and Mississippi Canal at this place, as stated in our advertising columns. Maj. J. H. Willard, U. S. Engr., 1637 Indiana Ave., Chicago, Ill.

DES MOINES, IA.—The contract for constructing the melan arch bridge at North Sixth Ave. has been awarded to J. H. Kilmar, at $76,000.

ST. PAUL, MINN.—Local papers state that the South St. Paul Belt Ry. Co. proposes to build a bridge over the Mississippi River, in the near future. A bill has been introduced in the legislature asking for permission to build the structure.

TOPEKA, KAN.—A melan arch bridge, 70 ft. in length, is to be erected this spring. P. L. Wise, Cy. Engr.

WAHOO, NEB.—A bridge will probably be erected by Saunders and Douglas counties to span the Platte River, connecting the counties.

GRAND FORKS, N. DAK.—Bids are asked until April 3 for furnishing the iron required for the construction of any or all bridges to be built by the county during 1900, according to reports. J. W. Scott, County Audr.

DUPUYER, MONT.—Bids are asked until April 2 for erecting a wooden truss bridge over the Teton River, near Collins Station, and for removing the structure over Muddy Creek, about five miles south of its mouth, and re-erecting the same bridge at a point near the mouth of the creek. A. C. Warner, County Clk., Chateau.

EUFAULA, IND. TER.—A company has been formed by the citizens of this town to build a suspension bridge over the Canadian River five miles southeast of this town, to cost about $40,000.

FERNDALE, CAL.—A petition will be presented to the supervisors asking for a bridge over the Van Duzan at a point on the county road; estimated to cost $50,000.

ALAMEDA, CAL.—Thomas Ahern, Roadmaster, Oakland Pier, Alameda, is reported as stating that the Southern Pacific Co. will build 15 new bridges this year, for which plans are now being prepared.

ATWOOD, ONT.—Bids are asked until April 9 for erecting two steel bridges, one over the Maitland River, 38 ft. long, and the other at concession 4, lot 11, 38 ft. long, according to reports. F. T. Fullarton, Clk., Elma Township.

OTTAWA, ONT.—Bids are asked until April 19 for constructing an iron and steel bridge over the Rideau River with ashlar masonry foundation, to have four spans, 125 to 170 ft. in length, 20 ft. wide; estimated cost, superstructure, $17,000; substructure, $18,000. Robt. Surtees, Des. Engr.; E. G. O'Brien, Secy., Ottawa Improvement Commission.

WINNIPEG, MANITOBA.—The government engineer has recommended the construction of a steel bridge over the Little Saskatchewan River at Rapid City.

WINNIPEG, MAN.—Bids are asked until April 7 for constructing abutments for two 60 ft. spans, and two 66 ft. spans, and for constructing two 25 ft. arch culverts. J. Osborne, Gen. Supt. Canadian Pacific Ry. Co.

BUILDINGS.

BANGOR, ME.—Frank A. Bourne, Arch., 849 Tremont Bldg., Boston, writes us that the new library building here will be two stories, 14 × 46 ft., built of stone, have steam heat and cost about $100,000; preliminary plans have been accepted, but building will probably not be erected this season.

SOUTH HADLEY FALLS, MASS.—Bids are asked until April 12 for erecting a school house, separate bids for heating, etc. C. H. Davenport, Chn. Bldg. Com., E. D. Newcomb, Secy.

BRIDGEPORT, CONN.—McKim, Mead & White, 160 5th Ave., New York, write us that nothing is expected to be done at present in regard to the proposed new city hall building, but the work will be advertised later.

BROOKLYN, N. Y.—Plans have been filed by E. P. Morse, 428 Sixth Ave., for a two-story brick iron works, 80 × 600 ft., at First Ave., near 55th St., to cost about $93,000. J. P. Conlon, Arch., 143 W. 96th St., Manhattan.——It is stated that a new school house, to cost about $120,000, will be built at 21st Ave., near 85th St., Bensonhurst.

BROOKLYN, N. Y.—We are informed that the following bids were received March 24, by M. T. Endicott, Ch. Bureau Yards and Docks, Washington, for reconstructing and enlarging building No. 22 at the navy yard; (1) being for building complete as per plans and specifications; (2) same as 1, omitting furnishing and installing elevator, and plumbing work in paragraphs 71 and 72, brick construction for elevator not omitted; (3) same as 2, omitting southeast gable end and bays Nos. 13, 14 and 15; (4) same as 3, omitting bays 11 and 12; (5) same as 4, omitting bays Nos. 9 and 10; (6) same as 1 and based on the removal of the old building and foundations and clearing of site by government:

JACKSON, MISS.—The State Capitol Commission will receive plans from April 6 to April 20 for a new state house, to cost complete about $1,000,000.

BRISTOL, TENN.—Bids are asked until April 26 for installing a heating and ventilating apparatus in the U. S. building. J. K. Taylor, Supervising Arch., Washington.

CLARKSVILLE, TENN.—The court house was destroyed by fire recently; loss, about $125,000.

LOUISVILLE, KY.—Dodd & Cobb, Archs., write us that the contract for the foundation of the Belknap warehouse on First St. has been let. Bids for further construction will be received in about a month.

NEWPORT, KY.—Bids are asked until April 25 for installing a heating and ventilating apparatus in the U. S. building. J. K. Taylor, Supervising Arch., Washington.

LIMA, O.—It is stated that the question of issuing $100,000 in bonds for erecting a new high school will soon be submitted to the people.

LANSINGBURG, N. Y.—The following bids were received March 15 for constructing the reservoir and 23,000 ft. of conduit, as advertised in Engineering News: C. E. Hicks, Engr.; Harrington & Besch, Troy, $64,983; P. H. Harrison, Sons & Co., Newark, N. J. (accepted), $65,985; Chas. F. Taylor, Syracuse, $69,211; Robbins, Noonan & Co., Saratoga, $69,598; Jehiel Vaughan, Stamford, $70,078; McDonough & Cunningham, Troy, $71,292; Baker & Morris, Syracuse, $71,538; Martin Murray, Troy, $72,163; Dollard & Holler, Albany, $72,701; Frank Pledgeon, Saugerties, $75,545; Smith & McCormick, Easton, Pa., $76,053; Troy Public Works, Utica, $80,585; Doolittle & Co., New York, $83,584; Artesian Well Drilling Co., New York, $83,818; Chambers & Casey, Rochester, $87,348; McCahey & Linehan, Sand Lake, $106,499; Chambers & Casey, (on dam only), $60,811; Ellis Bros., Troy, (pipe line only), $29,650. The itemized bids will probably be given next week.

LE ROY, N. Y.—An election will be held April 3 to vote on the question of issuing $14,000 for an increased water supply. Address Village Clerk Howe, Trustee Lapp and Superintendent Falkner.

MEDINA, N. Y.—The Medina Water-Works Co. is sinking new wells for a better water supply. Should the quantity from the wells prove insufficient a pipe 10 miles long will be laid to Lake Ontario.

MOUNT MORRIS, N. Y.—L. B. Richardson has been awarded the contract for extending the mains of the Mills Water-Works Co., work to begin about May 1.

VICTOR, N. Y.—This place has defeated the proposition to issue $15,000 in bonds for works. W. C. Snyder, Village Pres.

LEBANON, PA.—The following bids were received March 23 for a pumping plant of 5,000,000 gallons capacity at Hammer Creek. George Pfeiffer, Jr., Camden, N. J., including pipe lines, blow-outs, valves, pumps, dam, pump well, engine house, everything complete and operate plant for one week at his own expense: two 1¼ million gallon daily capacity pumps, $75,500; one 2½ million gallons, $74,305; two 2½ million gallons, $87,255; Hawman & Bro., Reading, similar bid, $77,712, $70,977 and $92,250, respectively, instead of offering to supply two 2½ million gallon pumps they propose to supply one with a daily capacity of 5 million gallons. The Barr Pumping & Engine Co., Philadelphia: Five million gallons capacity, $17,850; 2¼ million, $10,250; 1¼ million, $10,000.

KENSINGTON, MD.—At the May election this place will probably vote on the question of issuing bonds for city works.

WASHINGTON, D. C.—The only work of importance to be done this year in the district in connection with the water supply is the completion of the Aqueduct Tunnel at a cost of $139,034 by day labor. It is, however, not unlikely that the government will appropriate money for further work. A local paper states that there is need for an additional conduit to the receiving reservoir, and an appropriation of $8,000 is wanted to make surveys.

MANCHESTER, VA.—The council has voted to extend the water mains to certain of the suburban places. Capt. O'Brien, Pres. Council.

ST. MARY'S, W. VA.—The St. Mary's Water & Light Co. has been incorporated by R. L. Gregory, Pres., Sisterville, W. Va., J. B. Duffey, Washington, Pa., and others; about $50,000 of the capital stock has been subscribed. The water supply will be secured from the Ohio River, and bids will be received at once after the plans have been completed, which will likely be in April. Knox & Jackson, Engrs., Parkersburg, W. Va.

CHAPEL HILL, N. C.—The University of N. C. is preparing to install works to supply the University with filtered water. J. I. Ludlow, Consult. Engr., Winston.

UNION, S. C.—The New York Filter Mfg. Co., 26 Cortlandt St., New York, has been awarded the contract for a filter plant for this town. Other improvements are to be made to the works. J. L. Ludlow, Engr., Winston, N. C. J. H. Rogers, Mayor. The same company has a contract for enlarging the plant at Morgantown, W. Va.

DOUGLAS, GA.—This place, on March 17, defeated the proposition to issue bonds for works. W. W. McDonald, Mayor.

CRYSTAL SPRINGS, MISS.—Bids are asked until April 16 for constructing water-works and an electric plant, to cost about $22,500, as stated in our advertising columns. P. Moody, Mayor.

GALLATIN, TENN.—The contract for works has been let to Rosser & Castoe, Bellaire, O., conditioned on the sale of $40,000 of bonds, bids for which are wanted. The water supply will be secured from the Cumberland River. W. G. Kirkpatrick, Engr., Jackson, Miss.; J. W. Blackmore, Mayor.

CALHOUN, KY.—Leslie Bosley, Cashier Calhoun Bank, has purchased a 20-year franchise for works, and expects to have the plant completed by August.

OWENSBORO, KY.—The council is reported as considering a proposition from Detroit parties to put in works. Councilman Delker may be addressed.

CINCINNATI, O.—Local papers state that A. S. Henkel, 621 Main St., Cincinnati, is the lowest bidder, at about $135,000, for grading and excavating at the new water-works at California.

COLUMBUS, O.—A bill is before the legislature authorizing the issuance of $350,000 in bonds for improving the works and sewers.

OAKLEY, O.—Bids are asked until April 16 for the purchase of $15,000 of bonds for new mains, according to reports. Wm. Wersel, Village Clk.

WELLSVILLE, O.—The trustees are reported as desirous of securing estimates at once for furnishing a new pump. It is likely, however, that it is now too late to make the necessary appropriation, and so the pump cannot be purchased before the fall.

WYOMING, O.—Bids are asked until April 16 for the purchase of $5,000 of bonds for new mains, according to reports. W. A. Clark, Village Clk.

ZANESVILLE, O.—The question of issuing $65,000 in bonds for an addition to the works and for a new water supply from wells will be voted upon April 2. L. E. Brokford, Mayor; C. N. Bainter, Cy. Clk.

MUNCIE, IND.—The Muncie Water-Works Co. will spend at once about $40,000 for two new pumps with a capacity of 4,000,000 gallons, additions to the works, etc. part of the work has already been begun. B. Walling, Supt.

MARQUETTE, MICH.—Estimates for a new intake are being made, but nothing definite has been decided upon. E. B. Palmer, Pres. Water Bd.

CAPRON, ILL.—An election will be held April 5 to vote on the question of making a contract for works with W. H. Wheeler & Co., Beliot, Wis., noted in our issue of March 15. W. C. Downing, Village Clk.

CHAMPAIGN, ILL.—The Union Water Supply Co. is making improvements to its works, and also proposes to build a new reservoir of 1,000,000 gallons capacity, lay 10,000 ft. of new mains, and otherwise improve the fire protection in the city; estimated cost, $30,000. Address Superintendent Amsbary.

CHICAGO, ILL.—It is proposed to extend the lake tunnel from the old two-mile crib to the Carter H. Harrison crib at a cost of $180,000. The new tunnel will be about 11 ft. in diameter.

Bids Received at Washington, D. C., March 24, 1900, for Reconstructing Building No. 22 at Brooklyn Navy Yard.

	1	2	3	4	5	6
Snare & Triest, New York	$120,000	$112,000	$90,000	$74,826	$59,826	$120,000
John Thatcher & Son, Brooklyn	123,000	116,000	97,665	85,481	73,376	123,100
L. L. Leach & Son, Chicago	109,000	103,000	85,000	73,000	63,600	108,000
Augustus Smith, New York	109,765	103,565	81,188	68,886	56,584	55,864
*O'Brien & Hoolihan, Syracuse	114,436	105,686	85,063	71,024	56,964	114,336
R. A. Greifenhagen, Chicago	117,430	108,240	85,450	72,670	60,180	118,100

*In columns 1 and 2 add $4,000 each; 3, add $3,200; 4, add $2,667, and in 5, $2,134.

GLENS FALLS, N. Y.—G. P. Slade, Cy. Engr., writes us the people have voted to issue $60,000 in bonds for a town hall, and $9,000 for sewer extensions.

KINGS PARK, N. Y.—Bids are asked until April 9 for erecting a fire escape on Cottage "D" of the Long Island State Hospital, as stated in our advertising columns. J. G. Deubert, Vice-Pres. Bd. Mgrs.

MINEOLA (L. I.), N. Y.—Bids are asked by the board of supervisors, according to reports, until April 10, for erecting a court house.

NEW YORK, N. Y.—Plans have been filed by the Central Realty Co., 320 Broadway, for two 7-story brick flats, 100 × 96 ft., at Morningside Ave., 118th to 119th St., to cost about $400,000. H. B. Mulliken, Arch., 289 Fourth Ave.; by W. A. Schley, 114 E. 10th St., for a 7-story brick flat, 47 × 91 ft., at 218 and 220 W. 21st St., to cost about $75,000. G. F. Pelham, Arch., 503 5th Ave.; by Wauss & Rothschilds, 107 E. 64th St., for a 7-story brick flat, 85th St. and Lexington Ave., to cost about $90,000. Brun & Hauser, Archs., 1123 Broadway; by A. S. Luria, 141 Broadway, for a 7-story brick flat at 116th St., near Amsterdam Ave., to cost about $225,000. Neville & Bagge, Archs., 217 W. 125th St.; by R. H. Sassien, 120 Broadway, for a 7-story brick flat at 22 E. 31st St., to cost about $35,000. Israel & Harder, Archs., 194 Broadway; by Le Grand K. Pettit, 556 Halsey St., Brooklyn, for two 7-story brick flats, 102 × 112 ft., at Broadway and 85th to 86th Sts., to cost about $600,000. Hill & Turner, Archs. 150 5th Ave.; by Matthew Baird, 433 E. 92d St., for two 6-story brick factory buildings at 49th St., near 12th Ave., to cost about $60,000. S. B. Ogden & Co., Archs., 1031 Madison Ave.; by City & Suburban Homes Co., 287 Fourth Ave., for two 6-story brick flats, at 64th and 65th Sts., near First Ave., to cost about $150,000. J. E. Ware & Sons, Archs., 3 W. 29th St.; by John Daniell & Sons, 759 Broadway, for an 8-story store and loft building, at 69 and 71 E. 8th St., to cost about $100,000. Clinton & Russell, Archs., 32 Nassau St.

NEW YORK, N. Y.—Bids are asked by the Department of Correction, 148 E. 20th St., until April 12, for constructing a complete high and low pressure steam plant, electric lighting plant, elevators, etc., in the new City Prison.

NEW YORK, N. Y.—Hill & Turner, Archs., 150 Fifth Ave., write us that estimates are now being received for all work on the two seven-story apartment houses at 85th to 86th Sts. and Broadway, to cost $600,000.

WHITE PLAINS, N. Y.—The supervisors have, it is said, decided to build a new court house, to cost about $80,000.

WINFIELD (L. I.), N. Y.—Reports state that a new school house, to accommodate 500 pupils, and cost about $60,000, will soon be built.

JERSEY CITY, N. J.—The senate has passed a bill authorizing an issue of $300,000 in bonds for building a new high school.

McKEESPORT, PA.—The United Traction Co., City Savings Bank Bldg., Pittsburg, has completed plans for a new car house, to cost about $60,000. J. Murphy, Gen. Supt.

PHILADELPHIA, PA.—Bids are asked until April 14 for completing a storehouse at the League Island Navy Yard. M. T. Endicott, Ch. Bureau Yards and Docks, Washington.

READING, PA.—The Philadelphia & Reading Ry. has let the contract to Ryan & Kelley, 8 S. Broad St., Philadelphia, for erecting the shops, 200 × 749 ft., at Robeson, Amity and 9th Sts., to cost about $1,000,000.

WASHINGTON, D. C.—The Phoenix Iron Co., Philadelphia, has been awarded the contract for furnishing the structural steel for the government printing office building, at $452,891. C. A. Schneider's Sons, Washington, submitted a bid at $451,954, but the bid of the Phoenix Iron Co. was the lowest bid on time allowance. Rolled beams and girders are to begin in two months, and complete in six months; average price for the 12,338,880 lbs. of steel, 3.67 cts. a lb. The total bid of the Carnegie Steel Co., the only other bidder, was $526,515. The bid of the Fawcett Ventilated Fireproof Building Co., Ltd., Philadelphia, has been recommended for acceptance, being somewhat modified as to floor construction. Total, $211,314. The itemized bids for the steel, as well as for the brick and fireproofing, were given in our last issue.

WASHINGTON, D. C.—The house has authorized an appropriation of $10,000 for the preparation of plans for a memorial building or statue to Gen. Grant.——George W. Cooper, 606 F St., N. W., is preparing plans for a $300,000 office building to be erected by Davidson, Davidson & Bond, at 14th and N. Y. Ave.——Reports state that Capt. Joseph Willard has let the contract for erecting the new Willard Hotel, to cost about $2,000,000, to the George A. Fuller Co., 160 5th Ave., New York.

COLUMBIA, S. C.—Bids are asked until April 9 for building a lock keeper's house and other buildings on the west side of Congress River, near here. Capt. J. C. Sanford, U. S. Engr., Charleston.——F. P. Milburn writes us that the State Capitol Commission has invited several architects to submit plans for completing the state house, to cost about $200,000. Plans will be chosen about April 1.

CAMILLA, GA.—Bids are asked until April 10 for erecting a court house. H. C. Dasher, County Clk.

MOBILE, ALA.—Bids are asked until April 19 for building a lock tender's house at lock No. 4, Black Warrior River. Maj. Wm. T. Rossel, U. S. Engr.

DECATUR, IND.—Bids are asked until April 24 for erecting the new county asylum. W. E. Fulk, Engr.

WABASH, IND.—The contract for erecting a new school house has been let to Wm. Stewart, at $19,400.

NEW BERRY, MICH.—The contract for erecting two buildings at the insane institution is said to have been let to Lipsett & Gregg, Sault Ste. Marie, at $37,861. W. A. Bowers & Co., Milwaukee, Wis., have been awarded the heating and ventilating contract.

DUBUQUE, IA.—Bids are asked until April 18 for alterations, etc., to the U. S. building. J. K. Taylor, Supervising Arch., Washington.

CROOKSTON, MINN.—It is stated that Kinney & Deitweiler, Austin, will prepare plans for the new court house, to cost about $60,000.

DULUTH, MINN.—The following bids have been received for erecting the state normal school: MacLeod & Smith, Lonsdale Bldg., $68,200 (accepted); Gross Construction Co., La Crosse, Wis., $71,500; Watterworth & Fee, Exchange Bldg., $71,849; Lucius Campbell, Duluth, $71,900; Lounsberry & Smith, Duluth, $72,000; C. E. Evans, Duluth, $74,480; Butler-Ryan Co., 330 Globe Bldg., St. Paul, $79,750; Leck & Prince, 2511 5th Ave., Minneapolis, $82,550.

NEW ULM, MINN.—Bids are asked until April 10 for erecting a brick hotel at Okawa. Gust. Drews, Owner.

HASTINGS, NEB.—Plans, etc., will be received until April 3 for a new fireproof wing at the Hastings Insane Asylum. W. F. Porter, Secy. Bd. Pub. Lands and Bldgs., Omaha.

OMAHA, NEB.—Bids are asked until April 24 for erecting an extension to the U. S. building. J. K. Taylor, Supervising Arch., Washington.

BUTTE, MONT.—An election will be held April 7 to vote on the question of issuing $50,000 in bonds for erecting two new school houses.

KALISPELL, MONT.—Bids are asked until April 9 for the purchase of $40,000 in bonds for erecting a court house. M. Therriault, County Clk.

ST. LOUIS, MO.—Weber & Groves, 509 Olive St., have prepared plans for a 5-story brick office building on 4th St., to cost about $90,000, for Col. C. G. Stifel.

SALEM, ORE.—Bids are asked until April 4 for alterations to the state capitol. W. Lyon, Clk. Bd. Capitol Bldg. Comrs.

BERKELEY, CAL.—An ordinance has been passed for the erection of a high school, to cost about $70,000, and a grammar school, to cost about $30,000.

FORT JONES, CAL.—Bids are asked until April 15 for erecting a hotel. Arnold & Barrett, Archs., Redding.

OTTAWA, ONT.—The Canada Atlantic Ry. proposes to build a 5,000,000-bushel elevator at Sorel, Que. E. J. Chamberlain, Gen. Mgr.

MONTREAL, QUE.—The contract for erecting a grain elevator, capacity 3,000,000 bushels, for the Conner's syndicate, of Buffalo, N. Y., is said to have been let to Jas. Stewart & Co., Commercial Bldg., St. Louis, Mo. Plans were drawn by Barnard & Record, 3434 Harriet Ave., Minneapolis, Minn.

WINNIPEG, MAN.—Bids are asked until April 7 for erecting a Y. M. C. A. building at Portage Ave. and Smith St. Geo. Browne, Arch.

WATER-WORKS.

(For foreign water-works see under "Foreign Contract and Export News.")

BATH, ME.—The Maine Water Co. has let the contract for furnishing 2,700 ft. of 16-in. cast-iron water pipe to the U. S. Cast-Iron Pipe & Foundry Co., Chicago. The contract for laying it has been let to Jos. G. Falcon, of Evanston, Ill. J. W. Ellis, Consult. Engr., 178 Devonshire St., Boston.

CAMDEN, ME.—At the annual town meeting March 19 this place appropriated $10,000 for preparing to introduce works to cost about $60,000. Chas. Wood, Town Clk.; F. H. Wilbur, First Selectman.

SPRINGFIELD, MASS.—Hearings are being given on the bill authorizing this city to secure an increased water supply from the Westfield River. It is being urged that West Springfield be included in the bill so that it may secure a supply of about 500,000 gallons a day. Percy M. Blake, Engr. Address Mayor Hayes.

PAWTUCKET, R. I.—The Pawtucket Steam & Gas Pipe Co. has been awarded the contract for 10,000 ft. of 1-in. and 5,000 ft. of 2-in. wrought iron tarred water pipe.

ADAMS, N. Y.—This place has voted to issue $21,000 in bonds to purchase the plant of the Adams Water-Works Co. Daniel Fish, Pres. Village.

BUFFALO, N. Y.—The residents of Kenmore have voted to contract with Buffalo for a new water supply and $6,000 in bonds will be issued to lay mains, etc.

DOUGLASTON (L. I.), N. Y.—Stewart M. Neff, 120 Liberty St., New York, has been awarded the contract for extending the Flushing works to this place and Little Neck. The pipe has been purchased.

ELBA, N. Y.—This place, it is stated, will spend $1,000 for fire protection, etc.

JOHNSTOWN, N. Y.—Bids are asked by the water commissioners until April 17 for the purchase of $20,000 of 4% water bonds for improving the works. G. A. Stewart, Pres.

DES PLAINES, ILL.—Plans have been prepared by R. C. Huston, County Bldgs., Chicago, for sinking a brick or iron shaft 117 ft. deep to increase the water supply.

EDISON PARK, ILL.—Plans and estimates for works have been prepared, but the plant will not be built this year. Richard C. Huston, Engr., County Bldg., Chicago.

MILWAUKEE, WIS.—Bids are asked until April 6 for furnishing 1,900 tons of 4 to 16-in. cast-iron water pipe. C. J. Poetsch, Cy. Engr.

NEW LONDON, WIS.—Reports state that this place is considering a proposition for works submitted by the Municipal Construction Co., Chicago.

DASSEL, MINN.—This place is reported to have defeated the proposition to build works to cost $7,000.

GRAND MEADOW, MINN.—This place proposes to build works, according to reports.

HERMAN, MINN.—This place is reported to have voted to issue $7,500 in bonds for works.

OSAKIS, MINN.—It is expected that bids for building works will be received about May 1, although up to March 19 no designing engineer had been engaged. The works will consist of an iron stand pipe or wooden tank, a pump, 1,200 ft. of 8-in. and 2,000 ft. of 5 or 6-in. pipe, eight hydrants etc.; estimated cost $10,000. W. A. Yates, Pres.

SISSETON, S. DAK.—The question of works and an electric plant is being considered, according to reports.

HARVE, MONT.—The question of building works is reported as being considered. C. W. Ling, Town Clk.

IOLA, KAN.—This place voted March 19 to build works. Nothing further has been done, but work on both waterworks and an electric plant will be begun as soon as the bonds have been issued. Population, 7,500. W. M. Knapp, Cy. Clk.

TOPEKA, KAN.—It is likely that bids for the new works to cost about $450,000 will be received late in the fall. The source of supply will be from wells. Plans are not yet prepared. The Topeka Water Co. values its works at $700,000, and this the city will not pay. P. L. Wise, Cy. Engr. Address Mayor Drew or Councilman Warner, Chn. Com.

LEAVENWORTH, KAN.—The question of purchasing the works of the Leavenworth & Fort Leavenworth Water Co., is reported as being considered. Address Councilman J. P. Bauserman.

CAMERON, MO.—The question of building works is reported as being considered.

SPRINGFIELD, MO.—Local papers state that the Springfield Water-Works Co. will build a new reservoir and otherwise improve the works. M. P. Wescot, Pres., Portland, Me.

NEWPORT, ARK.—The city will purchase the works of the Newport Water Co. for $32,000, and will make improvements to cost $18,000.

BRANDON, TEX.—The question of works is being considered, according to reports. The water supply will be secured from wells.

CORNHILL, TEX.—The Cornhill Water-Works Co. has been incorporated with a capital of $5,000 by W. T. Dunn and C. C. Foster.

DALLAS, TEX.—The question of issuing $100,000 of 4% 40-year bonds for improvements to the works, $35,000 for paving, etc., will be voted upon April 3. Edward Foy, Chn. Com.; Hugh Raines, Cy. Engr.

FORT WORTH, TEX.—A contract for sinking a 10-in. well 300 ft. deep in the pumping room of the uower house has been let to A. T. Hamilton.

SCHULENBURG, TEX.—The question of works, it is stated, is being considered.

STILLWATER, OKLA. TER.—This place is reported to have voted to issue $30,000 of 6% 20-year bonds for works. W. R. McGeorge, Mayor.

YUKON, OKLA. TER.—Works to cost about $3,500 will be built this summer. H. H. Hendershot, Engr., El Reno.

FORT FLAGLER, WASH.—Bids are asked until April 5 for contsructing works. Bids for sinking a well were received this week. Capt. W. W. Robinson, Jr., A. Q. M., Seattle, Wash.

ALAMEDA, CAL.—It is stated that the property, etc., belonging to the Artesian Water Co., of Alameda have been purchased by the Contra Costa Water Co. for about $750,000.

ANAHEIM, CAL.—The village trustees are reported to have decided to put in a compressed air plant for increasing the water supply.

SAN DIEGO, CAL.—Surveys for the proposed Otay flume to cost about $35,000 have been completed. Engineer Savage, of the San Diego Land & Town Co.

SAN FRANCISCO, CAL.—Local papers state that the supervisoral committee on public utilities is preparing an advertisement calling for water rights, reservoir sites, etc., for municipal works. The city is arranging to secure data, estimated cost, etc., for municipal works, either by purchase or by construction. The Spring Valley Water-Works Co. has been asked to offer its property for sale to the city. Address City Engineer Grunsky, Mayor Phelan, or Chas. W. Reed, Chn. Com.

IDAHO FALLS, IDAHO.—Bids for completing the works and an electric plant for which $12,000 in bonds has just been voted will be wanted about April 25. Jos. A. Clark, Chn. Com.; W. H. Pack, Cy. Clk.

SALT LAKE CITY, UTAH.—Bids are asked until April 14 for constructing a 5,000,000-gallon reservoir, connections, etc., as stated in our advertising columns. F. C. Kelsey, Cy. Engr.; J. E. Dooly, Chn. Bd. Pub. Wks.

ARNPRIOR, ONT.—The committee has recommended that an election be called to vote on the question of issuing $75,000 of 4% bonds for works and two main sewers, as recommended by Robt. Surtees, of Ottawa. There will be about 21,000 ft. of mains and 40 hydrants. The water supply will be taken from the Madawaska River. The committee consists of Mayor Howland, Councilmen Burwash, Farmer and Moir.

VICTORIA, B. C.—Bids are asked until 3 p. m. April 2 for furnishing 2,500 ft. of 4-in. cast-iron water pipe. W. W. Northcott, Purchasing Agent.

SEWERAGE.

BIDDEFORD, ME.—N. B. Walker, Mayor, has recommended the construction of new sewers and the macadamizing of new streets. D. T. Moore, Cy. Clk.

PETERBORO, N. H.—The town has voted to appropriate $200 for securing plans and specifications for a system for the center village. Address E. W. Jones.

ADAMS, MASS.—It is proposed to appropriate $1,000 to make surveys for a system, according to reports.

SWAMPSCOTT, MASS.—The proposed sewer construction has been laid over for a year. No other work is contemplated. M. D. Porter, Town Clk.

MIDDLEBORO, MASS.—The legislative drainage committee is giving hearings on the question of authorizing this city to build a system to cost $100,000. At present the sewage is drained into the Namashet River. The Grinnell bill petitioning for the work has been withdrawn. A committee of five has been appointed to consider the matter. Address Chas. L. Grinnell and Warren B. Stetson.

NEW HAVEN, CONN.—The sewer commission is in favor of building sewers this season in a number of streets.

BINGHAMTON, N. Y.—A bill is before the legislature authorizing the state to appropriate $50,000 to aid the city in the extension of the state hospital sewer. S. E. Monroe, Cy. Engr.

BROOKLYN, N. Y.—It is proposed to submit a resolution to the board of public improvements directing the improvement of the sewers in Brownsville.——Jas. Johnson is reported as preparing plans for a sewer in Newtown Ave.

KINGSTON, N. Y.—The council has passed a resolution authorizing the committee, the Mayor and Geo. N. Bell, Cy. Engr., to investigate methods of sewage disposal, with a view to formulating a plan for the second and ninth wards.

NEW ROCHELLE, N. Y.—E. H. Gay & Son have purchased $69,000 of paving and $26,000 of sewer bonds.

PATCHOGUE (L. I.), N. Y.—This place has defeated the proposition to issue $10,000 in bonds for a sewer in Ryder Ave. G. D. Gaurd, Pres.

NEWARK, N. J.—The city officials have been authorized to proceed with the construction of the central relief sewer, the construction of which has been delayed two years, while awaiting the decision of the court of errors and appeals on the point whether the city had the right to empty sewage into the Passaic River. The sewer will be 8 ft. 9 ins. to 4 ft. 10 ins., and about 4,600 ft. long, and was estimated in 1897 to cost $93,568. This decision will also give Paterson the right to complete a trunk sewer begun two years ago and on which $18,000 worth of work was done.

PASSAIC, N. J.—Local papers state that City Surveyor Wise has suggested that the city pump the sewage to disposal works on the salt meadows at Berry's Creek or at the Hackensack River, instead of building a trunk sewer; estimated cost, about $345,000.

CHAMBERSBURG, PA.—Councilmen Wolfs, Houser and Ludwig have been appointed a committee to investigate the matter of granting a franchise to build and operate a system to Col. Jared E. Lewis, Civil Engr. and Contractor, and Robt. L. Forrest, a banker, 421 Chestnut St., Philadelphia. Plans and surveys for a system, to cost about $75,000, were recently made by Chauncey Ives.

CONNEAUTVILLE, PA.—The question of building a system is being considered. Dr. M. B. Naramore, Burgess.

NEWPORT, PA.—Bids are asked until April 16 for constructing a 6 to 36-in. pipe sewer system, as stated in our advertising columns. Jas. M. Sharon, Secy.

WILLIAMSPORT, PA.—City Engineer Sydner has prepared plans for about 2,500 ft. of brick sewer to relieve Gropins Run; estimated cost, about $23 a ft.

HAMPTON, VA.—Bids are asked until noon of April 2 for building a system; check, $500. J. C. Outten, Chn.

SUFFOLK, VA.—This town is receiving bids for a topographical survey of the place with a view to putting in a system. W. B. Ferguson, Chn. Com.

DALTON, GA.—The city will construct a system in a short time. The survey has been made, and as soon as the vote is taken the work will commence. H. C. Hamilton, Engr. and County Surv.

OPELIKA, ALA.—Bids for constructing a system to cost about $20,000 will be wanted at once by the city clerk, according to reports. About nine miles of pipe will be wanted.

MONTEAGLE, TENN.—It is proposed to build a system, to cost about $8,000, and water-works, according to reports.

CINCINNATI, O.—It is proposed to build 7,846 ft. of brick and 16,633 ft. of pipe sewers, to range from 12½ ft. to 12 ins.; estimated cost, $105,150.——Bids for 1,890 sq. yds. of brick and 1,675 yds. of boulder paving are wanted until about April 12; estimated cost, $7,777. Thos. B. Punshon, Ch. Engr.-in-Charge.

COLUMBUS, O.—A bill is before the legislature authorizing this city to appoint a commission to carry out the plans for completing the system and building a sewage disposal plant prepared by J. W. Alvord, The Rookery, Chicago, in 1898, when the system and disposal plant was estimated to cost about $1,000,000. About $350,000 is to be made available for the work at once.

DAYTON, O.—Bids are asked until April 20 for 44,840 ft. of 8-in., 6,600 ft. of 10-in., and 1,740 ft. of 12-in. pipe sewer, 620 ft. of 4-in., 108 ft. of 6-in., 144 ft. of 8-in., and 780 ft. of 10-in. iron pipe, 150 manholes, 60 flushtanks, 73 lampholes, etc. P. E. Gilbert, Pres. Bd. Cy. Affairs.

TOLEDO, O.—Bids are asked until April 2 for 12 to 8-in. pipe sewers in one street, and until April 16 for a 66 to 30-in. brick sewer in certain streets. W. O. Holst, Cy. Clk.——A sewer in Adams St., to cost $33,154, is proposed.

WELLSVILLE, O.—Bids are asked until April 19 for furnishing the materials and for constructing about 2,750 ft. of 78-in. 1,620 ft. of 72-in., and 1,040 ft. of 60-in. cylindrical brick sewer, 13 manholes, 22 catchbasins, etc., Riggs & Sherman, Engrs., The Nasby, Toledo; T. J. Forner, Clk.

LAFAYETTE, IND.—The council, it is reported, is to be petitioned to build a system to cost about $65,000.

MUNCIE, IND.—It is proposed to build a sewer in Mound St. Address Councilman Haymond.

MARQUETTE, MICH.—Mayor Neidhart has suggested that a sewer be built in Lake St. to empty into Whetstone Brook; estimated cost, $18,000.

WYANDOTTE, MICH.—It is proposed to submit to the voters at the coming election the question of issuing $65,000 in bonds for sewers. Address Mayor Roehrig.

EDISON PARK, ILL.—Surveys and plans for a system have been made by R. C. Huston, County Bldg., Chicago. The outlet will discharge into the North Branch of the Chicago River. Water-works are also projected.

EVANSTON, ILL.—The council has voted to spend $2,070 for a 12-in. pipe sewer, etc.

DUBUQUE, IA.—J. B. Miller has been awarded the contract, at $11,620, for building a stone arch sewer in Couler Creek.

OTTUMWA, IA.—Work on the proposed system for South Ottumwa will likely be begun in the spring. The main sewer will be of brick and 7 ft. in diameter. J. T. Brady, Cy. Engr.

MINNEAPOLIS, MINN.—The council has voted to appropriate $22,000 for sewers in South Minneapolis.

MINNEAPOLIS, MINN.—Bids are asked until 7:30 p.m., March 30, for furnishing sewer pipe, castings, brick and cement. L. A. Lydiard, Cy. Clk.

GENOA, NEB.—Bids are asked until April 11 for building a system for the Genoa Indian School. W. A. Jones, Indian Comr., Washington, D. C.

OMAHA, NEB.—The park commissioners are considering a plan to purify the waters in the lakes at Riverview Park by eliminating the sewage.

MANHATTAN, KAN.—Bids are asked until noon April 2 for constructing 8,000 ft. of pipe sewer. Address Black & Laird, Topeka, Kan.

INDEPENDENCE, MO.—It is proposed to build 8,200 ft. of 8-in. pipe sewers, at a cost of $6,560, and also to do considerable brick paving. H. H. Pendleton, Cy. Engr.

HOUSTON, TEX.—R. D. Wood & Co., Philadelphia, Pa., are reported to have submitted the lowest bid, at $42,800, for furnishing 2½ miles of 24-in. cast-iron sewer pipe, and that T. J. Shea submitted the lowest bid for laying the pipe. Alex. Potter, Engr., 157 Broadway, New York.

GUTHRIE, OKLA. TER.—This place will vote in April on the question of issuing bonds for a system and for improving the water supply.

OKLAHOMA CITY, OKLA. TER.—This city will soon vote on the question of issuing bonds to build three miles of 24 to 8-in. pipe sewers; average cut, 5 ft.; estimated cost, $12,000. H. H. Hendershot, Engr., El Reno, Okla.

ROSWELL, N. MEX.—Matt & Roberts, Independence, Mo., are reported to have been awarded the contract for the trunk sewer for the proposed system, at $25,000. Further contracts for the system will soon be let. Hiram Phillips, Engr., Lincoln Trust Bldg., St. Louis, Mo.; B. F. Hammett, Jr., Clk.

OREGON CITY, ORE.—It is proposed to build sewers in the bluff district. Address Councilmen Charman, Grace and Albright.

CHICO, CAL.—The question of issuing bonds for a system is reported as being considered.

MERCED, CAL.—The preliminary ordinance for a system was published about March 7, and it will probably be in April before an election to vote on the question will be held. The system will consist of 19,220 ft. of 10-in., 8,100 ft. of 8-in. and 45,570 ft. of 6-in. pipe, 2,120 4-in X branches, 102 manholes, 39 flush tanks, etc.; estimated cost, $35,000. V. T. McCray, Engr.; W. H. Turner, Pres.

PHOENIX, ARIZ.—Bids are asked until April 20 for furnishing the materials and for constructing a sewer and small water-works at the Truxton Canon boarding school. W. A. Jones, Indian Comr., Washington, D. C.

GARBAGE DISPOSAL—STREET CLEANING

BOSTON, MASS.—The aldermen are considering the question of appropriating $50,000 for purchasing land and erecting buildings for the sanitary and street cleaning departments of the Dorchester district. B. T. Wheeler, Supt. Sts.; T. N. Hart, Mayor.

BRIDGEPORT, CONN.—Local papers state that there is a probability that the crematory will have to be rebuilt before the city will buy it. Address President Havens, of the Health Board.

BINGHAMTON, N. Y.—The mayor's veto of the resolution to advertise for bids for garbage collection and disposal, noted in our last issue, is in the hands of the council, and will be decided at the meeting of April 3. S. D. Kane, Cy. Clk.

LONG BRANCH, N. J.—The legislature has been asked to authorize this city to build a crematory.

ALLEGHENY, PA.—Bids for the disposal of the garbage, etc., for three years from April will be received about April 8. Jos. Hastings, the present contractor, has received $28,000 a year for the work, but it is hoped to let the new contract for less than that. Henry Albrecht, Chn. Com.; J. R. Murphy, Dir. Pub. Safety.

READING, PA.—The question of building a crematory is reported as being considered.

WASHINGTON, D. C.—Bids are asked by the district commissioners until April 20 for collecting and disposing of the garbage, refuse, ashes, etc., for five years from July 1, as stated in our advertising columns. The specifications are on file at the office of Engineering News, 220 Broadway, New York. Warner Stutler, Supt. St. Cleaning Dept.

WHEELING, W. VA.—The contract for rebuilding the crematory has been let at $3,325 to W. J. Hamilton, Wheeling. A. L. White, Cy. Engr.

LUDLOW, O.—The council, it is reported, is considering the question of a crematory.

INDIANAPOLIS, IND.—City Engineer Jeup is preparing specifications for sprinkling the unimproved streets, to cost about $40,000 a year. Bids for the sprinkling will soon be wanted.

TERRE HAUTE, IND.—The board of public works will soon ask for bids for the collection of garbage, ashes, dead animals, etc., the present contracts expiring about May 20.

SIOUX CITY, IA.—The city officials are considering a plan for sprinkling the streets.

GREENVILLE, TEX.—Reports state that the committee, Councilman Middleton, Chn., has been directed to buy a crematory at once, to cost $6,500.

DALLAS, TEX.—At the election in April this city will vote on the question of issuing $15,000 in 4% 40-year bonds for a crematory.

SALT LAKE CITY, UTAH.—Bids are asked until April 3 for furnishing 15 street sprinkling wagons, with capacities of 600 and 750 gallons. Prices to be f. o. b. Salt Lake City. R. C. Naylor, Cy. Recdr.

STREETS AND ROADS.

WATERTOWN, MASS.—The town committee has appropriated $15,000 for roads and bridges.

WORCESTER, MASS.—Bids are asked until April 2 for furnishing 30,000 lin. ft. of curbstone, 1,000 lin. ft. of circular curb, 8,000 sq. yds. of paving blocks, and 175 corners. W. S. Prior, Street Comr.

NEW HAVEN, CONN.—The council has voted to pave a portion of Temple St. with asphalt.

BROOKLYN, N. Y.—The question of extending Bedford Ave., from the Boulevard to Flatbush Ave., to cost about $190,000, is being discussed.

HUNTINGTON, N. Y.—Bids are asked by the town commissioners until April 6 for constructing a highway across Centerport Harbor, as stated in our advertising columns.

NEW YORK, N. Y.—Bids are asked by the department of highways, 21 Park Row, until April 10 for regulating, curbing, grading, etc., in six streets in the Bronx.

UTICA, N. Y.—The council is discussing the question of extensive paving for this season.

WATERTOWN, N. Y.—The board of public works has been petitioned to lay 7,000 sq. yds. of asphalt paving on Court St., to cost about $15,000.

JERSEY CITY, N.J.—C. H. Van Kuren, Ch.Engr., writes us that the city will lay 10,000 sq. yds. of asphalt pavement, to cost about $22,000. This includes the space between double rails about 30 ins. wide.

JERSEY CITY, N. J.—Bids are asked until April 3 for macadamizing Winfield Ave., about 4,580 sq. yds., and for laying about 540 ft. of 48-in. brick sewer, and about 800 ft. of 48-in. cast-iron sewer pipe in 6th St. G. T. Bouton, Clk., Bd. St. Comrs.

CHESTER, PA.—Bids are asked until April 2 for paving a number of sidewalks. W. F. Lehman, Chn. Com. on Sidewalks.

EDGEWOOD, PA.—Bids are asked until March 30 for improving Lloyd Ave., about 2,200 lin. ft. curbing, 2,650 sq. yds. paving and 2,300 cu. yds. of grading. R. L. Smith, Borough Engr., Park Bldg., Pittsburg.

ERIE, PA.—We are informed that bids for paving Walnut St. will be asked later in the season.

PHILADELPHIA, PA.—The contract for repairing the paved streets for the current year has been let to the Mack Paving Co., 513 Fidelity Bldg., at $334,950, and that for keeping the unpaved streets and country roads in repair and for furnishing 60,000 tons of broken stone to D. J. McNicol, 28 So. Delaware Ave., at $159,000.

RIDLEY PARK, PA.—It is stated that this town will sell $33,000 of 30-year bonds for street improvements.

SHENANDOAH, PA.—W. G. Gregory, Borough Engr., writes us that bids have been received for laying about 4,800 sq. yds. of brick pavement, to cost about $8,800.

WASHINGTON, PA.—Bids are asked until April 13 for grading East Prospect and Dewey Aves. M. M. Decker, Secy.

WASHINGTON, D. C.—We are informed that the city will lay about 59,000 sq. yds. of sheet and block asphalt pavement, to cost about $119,000.

RICHMOND, VA.—It is stated that the streets committee will shortly advertise for bids for considerable paving, etc., in the various wards.

WILMINGTON, N. C.—The contract for paving Princess and Market Sts. with brick has been let to the Tennessee Paving Brick Co., Chattanooga, Tenn.

BIRMINGHAM, ALA.—City Engineer Kendrick is said to be preparing plans for extensive street improvements.

NEW ORLEANS, LA.—It is stated that the council has directed the city clerk to readvertise for bids for paving St. Charles St.

NEW ORLEANS, LA.—Bids are asked until April 2 for paving sidewalks on portions of 23 streets, and for asphalting one street. W. S. Douglas, Comptroller.

BELLEFONTAINE, O.—Bids are asked until April 24 for the following street work: 9,165 sq. yds. of brick or asphalt paving, 2,960 lin. ft. of curbing, 3,120 ft. of cement curb, 1,332 cu. yds. of grading, 1,466 cu. yds. of graveling, 3,163 ft. of cement gutter, and a quantity of drain pipe. M. J. Nichols, Cy. Clk.

CHILLICOTHE, O.—Bids are asked by the city clerk until April 10 for grading, curbing and paving with brick or asphalt several streets.

CINCINNATI, O.—Bids are asked until April 12 for improving Hoge St. with brick. G. H. Spellmire, Clk.

CLEVELAND, O.—Jas. Ritchie, Ch. Engr., Dept. Pub. Wks., writes us that the city will pave about 15 miles of streets, to cost about $500,000.—Lorain St. will be paved next year with Medina stone, to cost about $100,000.

GREENVILLE, O.—The council has passed ordinances providing for the improvement of four streets. E. M. Miller, Cy. Clk.

HOME CITY, O.—Bids are asked by the city clerk until April 2 for the purchase of $30,000 in bonds for street improvements.

MASSILLON, O.—The council has directed the city clerk to advertise for bids for grading, etc., in West St.

OAKLEY, O.—Bids are asked until April 16 for the purchase of $20,000 in bonds for street improvements. Wm. Wersel, Village Clk.

TOLEDO, O.—The council has passed an ordinance providing for the improvement of Crittendon Ave. W. O. Hoist, Cy. Clk.

YOUNGSTOWN, O.—The council has passed an ordinance providing for the improvement of Cleveland St. Wm. I. Davies, Cy. Clk.

BLOOMFIELD, IND.—Bids are asked until April 6 for constructing macadam roads in Smith township. H. S. Doney, Auditor.

FORT WAYNE, IND.—The city clerk has been directed to advertise for bids for improving four streets.

LAPORTE, IND.—An election will be held May 8 to vote on the question of issuing $75,000 in bonds for constructing gravel roads.

MT. VERNON, IND.—Bids are asked until April 19 for the construction of about 31 miles of gravel or macadam roads. S. G. Howard, County Auditor.

PAOLI, IND.—Bids are asked until April 4 for improving about 145,000 ft. of county roads. G. W. Tigarden, County Auditor.

VEVAY, IND.—Bids are asked, according to reports, until April 9 for constructing macadam roads in Posey. J. F. Houze, County Auditor.

ANN ARBOR, MICH.—The council has recommended the paving of Huron St. The city engineer estimates the cost of brick paving at about $30,000, and of asphalt at $35,000.

GRAND RAPIDS, MICH.—City Engineer Ames writes us that he has prepared the following estimates for paving Canal St., from Pearl to Trowbridge St.: Brick, 19,506 sq. yds., to cost about $39,430; asphalt, 17,768 sq. yds., including 1,738 yds. of brick gutter paving, to cost about $46,987.

SAGINAW, MICH.—The board of public works has adopted plans for paving Lapeer St., to cost about $16,000. Alfred Davies, Clk. Bd.

CHICAGO, ILL.—Bids are asked until April 4 for constructing a number of plank sidewalks. L. E. McGann, Pres. Bd. Improvements.

HOOPESTON, ILL.—We are informed that this city will pave a number of streets with brick this season.

MOLINE, ILL.—Bids are asked by the board of local improvements until April 6 for about 15,700 sq. yds. of brick paving. H. G. Paddock, Cy. Engr.

PEORIA, ILL.—Bids are asked until March 31 for the following street work, 802 cu. yds. excavation, 3,554 sq. yds. of asphalt pavement, 1,954 ft. of curb and gutter, 288 ft. of cement curb, 248 ft. protection curb. A. D. Thompson, Cy. Engr.

MILWAUKEE, WIS.—Bids are asked until March 30 for laying about 61,000 sq. yds. of asphalt paving, to cost about $125,000. C. J. Poetsch, Cy. Engr.

MINNEAPOLIS, MINN.—Bids are asked until March 30 for furnishing a quantity of paving brick, sandstone blocks, crushed rock, gravel, sand, Portland cement, and natural cement. L. A. Lydiard, Cy. Clk.

TOPEKA, KAN.—We are informed that the bids will be received about May 1 for about 90,000 sq. yds. of brick paving. The city will make several small repairs to its sewer system.

INDEPENDENCE, MO.—This city will pave about 21,120 sq. yds. with brick, to cost $36,860.—No bids were received March 20 for brick paving, owing to a defect in the council proceedings. Will be readvertised. H. H. Pendleton, Cy. Engr.

KANSAS CITY, MO.—The clerk has been directed to advertise for bids for the following street work: 51,500 sq. yds. of asphalt, to cost about $100,180; 18,000 sq. yds. of brick, to cost about $27,000; one mile stone sidewalks, to cost about $4,707; half a mile of brick sidewalks, to cost about $1,500; two miles of granitoid sidewalks, to cost about $10,000, and two sewers, to cost about $26,500. Bids for this work are wanted until April 5.

DENVER, COLO.—The city engineer has prepared estimates for the following work: 15,000 cu. yds. of excavation, 18,000 cu. yds. of embankment, 8,010 ft. of 5×18-in. sandstone curbing, 248 ft. of 5×18-in. circular granite corners, 1,914 sq. yds. of brick gutter, set in cement; 16,085 sq. yds. of macadam paving, 5,010 ft. vitrified drains, 10×27 in.; 18 manholes, 28 receiving basins, 10 cu. yds. concrete under railway tracks, 47 cu. yds. heavy masonry at sewer outlet, 50 cu. yds. smelter slag at sewer outlet, 220 lin. ft. 9½-ft. sandstone flag walks, 240 ft. wrought-iron hand rail. Estimated cost, $53,106.—An ordinance is before the council providing for the macadamizing of a road 4,000×36 ft.

SEATTLE, WASH.—The council has passed an ordinance providing for the improvement of First Ave., to cost $35,000, and for improving Madison St.

MARTINEZ, CAL.—It is stated that the city will soon issue $40,000 in bonds for street improvements.

NAPA, CAL.—The council has passed a resolution of intention to pave several streets with macadam. O. H. Buckman, Supt. Streets.

LEWISTON, IDAHO.—We are informed that bids for macadamizing Main St. will probably be received before April 15. Estimated cost, about $10,000.

MANUFACTURING PLANTS.

(For foreign manufacturing plants see under "Foreign Contracts and Export News.")

CENTRAL FALLS, R. I.—The Royal Weaving Co. proposes to build another mill as an addition to its plant. D. L. Goff, Pres.—The Quinebang Cotton Mills, on the Quinebang River, Conn., will increase its capacity by another mill, according to reports.

BUFFALO, N. Y.—It is reported that the construction of the Lackawanna Steel & Iron Co.'s plant at Stony Point will soon be started. It is proposed to build a railway to connect with the terminals of other lines in Buffalo.

TONAWANDA, N. Y.—It is reported that a new steel and iron plant, to employ 360 men, representing an investment of about $300,000, will be established in this town. The Inland Steel Co., Chicago, Ill., is reported as interested.

HACKENSACK, N. J.—The Campbell Wall Paper Co. has decided to build a factory at this place. James H. Semple, Huntington, is interested.

ELIZABETH, N. J.—It is stated that the Central R. R. of New Jersey will build repair shops at Elizabethport, to employ about 2,000 men. The shops will handle the repair work on the division between Easton and Jersey City, doing away with the present ones at the latter place. The improvements will cost about $1,000,000. W. A. Milford, Master Carpenter, Mauch Chunk, Pa.

DANVILLE, VA.—Local papers report the incorporation of the Crystal Ice & Power Co., $20,000 capital, to manufacture ice, for which a plant will be erected in this place by July 1. D. A. Overby, Pres.; R. L. Dibrell, Vice-Pres.

ANDERSON, S. C.—The Georgia-Carolina Mfg. Co. proposes to build a cotton mill near Hattons Ford, on the Tugaloo, from which 150,000 HP. is to be developed, to cost about $200,000, according to reports. Jas. J. Fretwell is interested.

GAINESVILLE, GA.—The Pacolet Mfg. Co., Pacolet, S. C., is reported to have purchased a site of land of 850 acres near this place on which it will erect a 50,000 spindle mill, to cost about $1,000,000. Plans for the new plant are now being prepared. V. M. Montgomery, Spartanburg, S. C., is said to be interested.

RUTLEDGE, GA.—The citizens of this town have organized a cotton mill company with $100,000 capital stock, of which $22,000 has been subscribed. W. P. Wallace, E. H. Watkins and J. W. Curtis are interested.

BIRMINGHAM, ALA.—The National Biscuit Co. will establish a plant in this city, to cost about $75,000, according to reports. M. J. Mullally, Mgr.

DECATUR, ALA.—Reports state that the United States Rolling Stock Co.'s works at this place has been purchased by capitalists headed by S. R. Smythe and Frank Conger, who propose to convert the plant into an iron and structural steel works. A company will be formed with a capital stock of $1,000,000.

WINONA, MISS.—The Winona Cotton Mills is said to have purchased a track of land on which it will build a factory, to cost about $100,000.

CHATTANOOGA, TENN.—Local papers state that the Park Woolen Mills are making preparations for building the proposed cotton fabric mill.

FAYETTEVILLE, TENN.—H. K. Holman informs us of the incorporation of the Elk Cotton Mills, with $60,000 capital stock. Mr. Holman writes that the entire equipment for a 3,000 spindle plant is wanted.

CINCINNATI, O.—Plans for the factory of Krohn, Lechheimer & Co., Ninth and Sycamore Sts., are being prepared. The structure will be 60×225 ft., and will cost about $70,000; stone foundation. The date for receiving bids has not been decided. A fan system, electric elevators and electric light and power will be needed. Samuel Hannaford & Sons, Archs.

PIQUA, O.—Fire destroyed the plant of the W. P. Orr Linseed Oil Mill of the American Linseed Oil Co. Reported loss, about $150,000.

DETROIT, MICH.—The Solvay Process Co., Syracuse, N. Y., is said to have awarded a contract to the Pittsburg Bridge Co., Pittsburg, for the erection and partial equipment of a building at this place to cost about $90,000.

FLINT, MICH.—Fire destroyed the Flint Wagon Works on March 20; reported loss about $200,000.

LAWRENCE, KAN.—The plant of the Pierson Flour Milling Co., valued at $150,000 was destroyed by fire on March 26, according to reports.

KANSAS CITY, MO.—The Union Cotton Oil & Meal Works has purchased Allcutt Packing Co.'s plant at Armourdale, and will fit it up as an oil mill, with capacity for manufacturing 120 tons of cotton seed into oil, daily, at a cost of about $100,000.

AUSTIN, TEX.—Plans for the new cement plant of the Austin Portland Cement Co. to be located in this city, are being prepared by the Osborn Co., Osborn Bldg., Cleveland, O. Contracts for the equipment will be let as soon as the plans and specifications have been finished.

BELTON, TEX.—It is stated that a committee has been appointed to investigate the equipment necessary for the Belton Cotton Mills. T. W. Cochran, Pres.; J. Z. Miller, Jr., Secy.

MT. VERNON, TEX.—Reports state that a company has been organized to build a cotton mill, for which about $42,000 has been subscribed. P. C. Majors and J. T. Banister are interested.

WAXAHACHIE, TEX.—L. C. Todd, Secy., informs us that the contracts for the buildings and the equipment of cloth mill of about 5,000 spindles and 150 looms will be let within 60 days. A company has been organized to operate the mill.

LEWISTON, IDAHO.—G. W. Truman and O. M. Collins of this city will put in a brick yard at once, and will need machinery.

MONTREAL, QUE.—The Nova Scotia Steel Co., Board of Trade Bldg., is said to be securing bids on the construction of a large steel pier, storage pockets and a lateral railway to reach its mines at Wabana, Newfoundland.

HAMILTON, ONT.—It is reported that the Nickel Steel Co., of Hamilton, proposes to build a steel and iron plant with a capacity of 2,400 tons a day, for which the Wellman-Seaver Engineering Co., Cleveland, O., have the contract for designs, etc. A blooming mill, a billet mill, a rail mill and two plate mills will also be established. The plant, it is stated, will cost about $30,000,000.

GAS PLANTS.

SHELTON, CONN.—The contract for lighting this town has been let to the Derby Gas Co., for ten years. C. H. Merritt, Pres., Derby.

VINELAND, N. J.—Reports state that F. A. McGowan, of Trenton, Pres. of the Consolidated Light, Heat & Power Co., has applied for a franchise for his company.

TERRE HAUTE, IND.—The board of public works has granted a franchise to the Terre Haute Pipe Line Service Co., which will erect a plant, to cost about $100,000.

RACINE, WIS.—Reports state that the Racine Gas Light Co., will build a plant, docks, etc., to cost about $150,000.

DAVENPORT, IA.—The contract for erecting a plant to cost about $300,000, for the Peoples' Light & Power Co. is said to have been let to the Western Gas Construction Co., Ft. Wayne, Ind.

TOPEKA, KAN.—We are informed that W. J. Faulkner, 103 State St., Chicago, has applied for a franchise for a plant.

WACO, TEX.—We are informed that the Waco Gas Co. contemplates making improvements to its plant.

MISCELLANEOUS CONTRACTS.

FIRE ALARM SYSTEM.—Winnipeg, Man.—Bids are asked until April 16 for installing a fire alarm system. C. J. Brown, Cy. Clk.

WOODEN PIER.—New York, N. Y.—Bids are asked by the Department of Docks, Pier A, N. R., until March 30 for erecting a pier at the foot of Broad St., E. R.

HARDWARE, CEMENT, ETC.—Winnipeg, Man.—Bids are asked until April 11 for furnishing a quantity of lumber, hardware, cement, etc. C. J. Brown, Cy. Clk.

BREAKWATERS.—Cleveland, O.—Bids are asked until April 17 for constructing east and west breakwaters at Ashtabula Harbor, O. Col. J. A. Smith, U. S. Engr.

PIERS.—Jersey City, N. J.—It is stated that the Central R. R. of N. J. will fill its land at Communipaw and build 20 new piers, to cost about $1,000,000. J. H. Thompson, Ch. Engr.

PUMPING PLANT.—Brooklyn, N. Y.—Bids are asked until April 14 for installing a pumping plant for dry dock No. 1 at the navy yard. M. T. Endicott, Ch. Bureau Yards and Docks, Washington.

FOG BELL AND STRIKER.—Cleveland, O.—Bids are asked until April 6 for furnishing a fog bell and striking apparatus on the Steel Intake Crib in Lake Erie. J. Vandeveide, Deputy Dir. Pub. Wks.

DREDGING.—Pensacola Bay, Fla.—Bids are asked until April 28 for dredging at entrance to Pensacola Bay, as stated in our advertising columns. Capt. C. A. P. Flagler, U. S. Engr., Montgomery, Ala.

LUMBER.—New York, N. Y.—The Georgia Lumber Co., Savannah, Ga., is said to have received the contract for furnishing about 3,000,000 ft. of yellow pine for the new dry-dock of the Morse Dry-Dock Co.

NAVAL SUPPLIES.—Washington, D. C.—Bids are asked until April 3 for furnishing a quantity of naval supplies at the League Island, Pa., and Norfolk, Va., navy yards. A. S. Kenny, Paymaster-General, U. S. N.

PARK SUPPLIES.—New York, N. Y.—Bids are asked by the department of parks, Arsenal, Central Park, until April 5 for furnishing a quantity of masons' supplies, plumbers' supplies, iron pipe, fittings, etc., lumber, hardware, etc.

DREDGE.—Cincinnati, O.—The following bids were received March 21 by Capt. H. F. Hodges for building a dredge. The Bucyrus Co., South Milwaukee, Wis., $29,000; Petersburg Iron Works Co., Petersburg, Va., $18,832; both bids were informal.

STEAMSHIPS.—Buffalo, N. Y.—It is stated that the American Shipbuilding Co., South Chicago, will build two steamers, to cost about $1,000,000 each, for the Great Lakes Steamship Co., Guaranty Bldg.; E. Houpt and J. Gordon are said to be interested.

FIRE APPARATUS.—Brooklyn, N. Y.—Bids are asked until April 4 for furnishing five first size hose wagons, one eighty-foot hook and ladder truck, and for putting rubber tires on the wheels of ten hose wagons. J. J. Scannell, Fire Comr., 157 E. 67th St., N. Y.

RIPRAP, ETC.—Chicago, Ill.—Reports state that the Illinois Central R. R. has let a contract to Love & Handley, East Sioux Falls, S. D., for furnishing 5,000 carloads of riprap and rough stone, for dyking, etc., along the Missouri River. J. C. Welling, Vice-Pres., 1 Park Row, New York, N. Y.

BREAKWATER.—San Pedro, Cal.—It is stated that the government has annulled the contract with Holdmeier & Neu, Chicago, Ill., for a breakwater at San Pedro. The contract was awarded over a year ago at $1,240,000; bids were given in our issue of Feb. 24, 1898. Bids will soon be asked for completing the work.

REFRIGERATING PLANTS.—St. Louis, Mo.—The following bids were received Feb. 28, by Capt. Mason M. Patrick, U. S. Engr., for furnishing refrigerating plants for tenders and dredge for dredging operations under Mississippi River Commission: the Memphis (Tenn.) Machine Works' bid was recommended for acceptance:

Bidder.	One plant.	Total for six plants.
Memphis (Tenn.) Machine Works	$2,190	$13,140
Atlanta (Ga.) Machine Works	3,287	19,722
Creamery Pkg. Mfg. Co., Chicago	2,799	16,794*
	2,600	15,600†
	2,490	14,940‡
Charles A. McDonald, Chicago, Ill.	4,050	24,300
De La Vergne Refrig. Mchne Co., N.Y.	5,500	33,000
Remington Mchn Co., Wilm'gton, Del.	3,150	18,900§
	2,950	17,700‖
Newburgh (N.Y.) Ice Mchn. & Eng. Co.	3,800	22,800
The Healy Ice Machine Co., Chicago	4,000	24,000
Frick Co., Waynesboro, Pa.	3,329	19,975
Kroeschell Bros. Ice Mach. Co., Chicago	3,530	21,180
The Fred. W. Wolf Co., Chicago	3,564	21,384
York (Pa.) Mfg. Co.	3,410	20,460
Ice & Cold Machine Co., Louisville, Ky	3,333	19,998
H. Vogt Machine Co., Louisville, Ky.	2,050	12,300¶

*For vertical single acting two-pump compressor. †Alternate proposal No. 1 for single pump compressor. ‡Alternate proposal No. 2, for horizontal style double acting Barber compressor. §With tight covers for tanks and ice molds. ‖Without tight covers for tanks and ice molds. ¶Absorption system.

RAPID TRANSIT TUNNEL.—New York, N. Y.—Jas. Pilkington, Fort Washington Park, Bronx Borough, has been awarded the contract by Jas. B. McDonald, Park Row Bldg., for lowering the Bleecker St. sewer, from Greene to Elm Sts., this being the first subcontract let for work in connection with the transit tunnel. This work will cost about $13,500, and was begun March 26. It is not known when work will be begun upon the tunnel itself, but bids from subcontractors for constructing sections and for other work in connection with the project will be opened on April 1. The following is an estimate of the quantity of material required for the tunnel, which will be 20.61 miles long, and will cost $35,000,000: Earth to be excavated, 1,700,228 cu. yds.; rock, 921,182 yds.; rock to be tunnelled, 368,606 yds.; concrete, 489,122 yds.; common brick, 9,733 yds.; enamelled brick, 7,785 yds.; facing brick, 1,001 yds.; stone pedestals, 8,285 yds.; cut stone, 3,303 yds.; steel beams, 21,729 tons; riveted steel, 20,147 tons; steel viaduct, 23,168 tons; cast-iron, 7,901 tons; waterproofing, 775,795 sq. yds.; restoring street surface, 270,016 yds.; restoring park surface, 33,699 yds.; track underground, 245,514 lin. ft.; elevated track, 59,766 ft.; time of completion, 4½ years. Wm. B. Parsons, Ch. Engr. Rapid Transit Comn., 22 William St.——Bird S. Coler, Controller, is quoted as stating that contracts for a tunnel to South Brooklyn, from the Battery, will be let within six months; estimated cost, $6,000,000. W. H. Baldwin, Pres. Long Island R. R., is reported to have withdrawn his application for a tunnel under the East River, and has returned the proposals for constructing the work.

FOREIGN CONTRACTS AND EXPORT NEWS

VIENNA, AUSTRIA.—Reports state that bids are invited for 27 locomotives and 900 freight cars for der Kaiser, Ferdinand's Northern Ry., 50 Nordbahnstrasse, this city.——The same company will construct a line from Lundenburg to Brozzko, near the Hungarian frontier; estimated cost, 580,000 florins. Herr R. Jelteles, Dir.

RUSSIA.—The Catharine Ry. Co., of Russia, will, about July, lay a new set of rails over its system, in addition to several new branches. The system is about 651 miles long; gage, 5 ft. A. Verchovtzev, Gen. Mgr., Ekaterinoslav.

TOKIO, JAPAN.—It is announced that Mr. Furnpawa, 7, Setomonocho Nihonbashi-ku, this city, owner of the Ashio Copper Mine, has purchased the Horakune Mine at Ebshu. The Toyokawa railway is to be extended to Kuhara. Soishiro Matsumoto, Dir. Ry. Bureau (Tetsudo Kyoku) 1, Kobiki-Cho Hatchome, this city.

LONDON, ENG.—The Lancashire & Yorkshire Ry. Co. is introducing a bill in Parliament which provides for additional rolling stock. H. A. Hoy, Ch. Mech. Engr.

ENGLAND.—Reports state that the Northeastern Ry. Co. will spend about $5,000,000 in improving a portion of its lines. G. S. Gibb, Gen. Mgr., York, Eng.; C. A. Harrison, Engr. Northern Division, Newcastle.

SANTIAGO, CHILI.—Congress has authorized that $100,000 be spent in surveys of new railways which the government proposes to build soon. Senor Ramon Garcia, Dir.-Gen., of Ejercito Libertador, 19-183.

TIFLIS, RUSSIA.—The Russian surveyors who have been studying various routes for the Russo-Persian Ry., has recommended the adoption of a track running from Engeli through Resht, Teheran, Ispahan and Shiraz to Bunder Abbas, on the Persian Gulf, about 700 miles. The report also discusses the scheme of building a line from Chabbar, by way of Mekran, Meshed and Khorassan, to Duschak on the Transcaspian line; also the extension of the eastern section of the latter system from Kushk to Herat, 40 miles.

RIO DE JANEIRO, BRAZIL.—The Sorocabana Ry., Rua Primeiro do Marco 33, has published a map of projected extensions to include lines from Bom Jardin to Cuyal, 830 miles, from Cerqueira Cezar towards the Rio Parana and a branch in the direction of Ponta Grossa to effect a junction with the proposed Sao Paulo to Rio Grande Ry.

VALPARAISO, CHILI.—Reports state that Clark's Transandean Ry. has been sold for $1,638,728 to Eliseo Gutierrez, a lawyer, representing the Bank of Chili, Edwards' Bank, the Commercial Bank and the Bank of Santiago.

MEXICO.—A concession has been granted by Gen. F. Z. Mena, Secy. State, to Jas. H. Holmes, Mgr. Hotel Green, Pasadena, Cal., for a line in Sonora, from Sierra Pinta, in the District of Altar, to Bahia de San Jorge, 14 miles. Work must commence in two and be completed in 14 months, and the head office must be in Quitobac (Sonora). Gage, 940 millimetros. A telegraph line is also to be constructed.——Another concession for a road in Yucatan has been granted to Lic. Rafael Donde, of the Companhia Peninsular de Ferrocarriles, to run from a point on the Merida & Campeche Ry. to Muna, with permission to extend it to Tekax, via Tical. Work must be commenced in six months and 40 kilometros must be finished within a year, and the whole line in 12 years. Width between rails, 940 milimetros. Head office must be in Merida. Materials, etc., can be imported free of duty for five years. Telegraph and telephone lines will be built.

GUADALAPARA, MEX.—Francisco Martinez Negrete, of Calle San Francisco 13, apartado 89, this city, has been granted a concession to build three new tramway circuits in the city, connecting as the three main points, Analco, Capilla and Aqua Azul.

PARIS, FRANCE.—The Comptoir National d'Escompte, rue Bergere 14, the Paris Thomson-Houston Co. and the Societe Francaise de Constructions Mecaniques have formed the Nord-sud Electrique Parisiene to build an underground electric line.

MANDALAY, INDIA.—The committee has accepted the plans of the Burma Electric Works Syndicate, Ltd., for a tramway, work to be commenced within one year and completed in three. M. F. Kindersley, Agent, Mandalay.

TOKYO, JAPAN.—The Tokyo Denki Tetsudo Kaisha, controlling the street car lines in eastern Tokyo, is reported to have let contracts through Tokata & Co., 10 Wall St., New York, N. Y., to the J. G. Brill Co., Philadelphia, for car trucks, and to the Westinghouse Electric & Mfg. Co., Pittsburg, Pa. The company had last year 20 miles of road in operation and 100 miles of electric lines proposed. Ichisuke Fujioka, Mgr.

CANEA, CRETE.—Bids are asked by the Cretan government, Constantinople, Turkey, until April 7, for building tramways in Crete.

BUENOS AIRES, ARGENTINA.—The Buenos Aires Electric Tramways Co., Ltd., has been organized to carry out the concession for electric lines recently granted to Chas. Bright, Civil Engr. Capital stock, $1,750,000.——About 40 miles of horse tramways in Montevideo, Uruguay, the Eate, Reducto and Pocitos lines, have also been purchased by Mr. Bright, with a view to equipping them with electricity.

VLADISVOSTOCK, RUSSIA.—R. T. Greener, U. S. Consul, has reported that bids are wanted at once by the Russian government for constructing an electric road, 20 miles long, and an electric light plant.

WEST HAM, E., ENG.—Bids are asked until April 10 for 45 double tenement houses; deposit for forms, $25. J. G. Morley, Borough Engr.

SALFORD, ENG.—The following statement shows the present condition of contracts for the new electric works; C. L. Turner, Elec. Engr.: Engines and generators cost $360,000, contractors, Mather & Platt, Salford; boilers, cost $76,000, Messrs. Galloway, Manchester; auxiliary plant, bids received, but not yet decided; 500 tramway poles, about $40,000, Messrs. Russells, Wednesbury; 100 tram cars, about $27,000, The Westinghouse Co., London; overhead equipment, not yet let; there will be approximately 40 miles of single track, and the same is being laid by the Tramways Department of the Salford Corporation. It has not been decided whether the city shall lay the conduits itself; this work, together with the main cables, will cost over $1,000,000.

BARCELONA, SPAIN.—The Barcelona Tramways Co., Ltd., is reported to have applied for permission to adopt electric traction on the Ensanche Co.'s line. Jas. Morris, Mgr.

LIVERPOOL, ENG.—The Mersey Ry. Co. has applied for powers to adopt electric traction on its miles of line under the Mersey River between Liverpool and Birkenhead. Jas. Falconer, Chn., 40 Heriot Row, Edinburg, Scotland; Herbert Wood, Supt., Central Station, Birkenhead.——The Wirral Ry. Co. has also applied to Parliament for powers to change its traction to electricity, at a cost of about $2,100,000. The line is about 13 miles long. S. J. Carr, Gen. Mgr., New Brighton; E. S. Wilcox, Engr., Birkenhead Docks.

WOLVERHAMPTON, ENG.—Bids are asked until April 14 for about 30,000 tons of granite setts for the new electric tramways. The lines are to be about 25 miles long, and the cost of the work will be about $1,250,000. J. W. Bradley, Borough Engr.

HUDDERSFIELD, ENG.—The contract for the new electric tramways has been let to Greenwood & Batley, Leeds, Eng. The extensions to the tramways will not be done for some time; estimated cost, $2,000,000. A. B. Mountain, Borough Elec. Engr.

AMSTETTEN, AUSTRIA.—This place will build an electric plant. The plant will be started with 900 HP. Communications should be in German and addressed: An die hochwohllobliche Stadtvertretung zu Amstetten, Austria.

SANTOS, BRAZIL.—The municipality it considering the electric lighting of the city, several proposals having been recently made to it. Population, 50,000.

GOMEZ PALACIO (DURANGO), MEX.—The Compania Jabonera de la Laguna is preparing to rebuild the soap factory, recently destroyed by fire. It has also obtained a concession for the manufacture of glycerine, and will expend $200,000 on this alone, the works for which are to be in running order in two years.

SAO JOAO DA BOA VISTA (SAO PAULO), BRAZIL.—The council is raising a loan of $14,000 for water and drainage works.

HAVANA, CUBA.—Press reports state that Governor-General Wood has decided against the contract of Michael J. Dady, of Brooklyn, N. Y., to build a sewerage system in this city. A committee will be appointed to decide upon a sum to be paid Mr. Dady for preparing the rejected plans, etc. A report will soon be submitted by engineers on plans for a system. After these plans have been approved bids for the construction will be asked. Col. Wm. M. Black, Ch. Engr. Pub. Wks., Havana.

HONOLULU, H. I.—Bids are asked until April 16 for a garbage crematory of 100 tons capacity. Address the Hawaiian Consulate, San Francisco, Cal., or 63 Wall St., New York.

LOUGHBORO, ENG.—H. Fotherly & Son, Burnley, Eng., have been awarded the contract for a 510 million gallon reservoir, at $290,000. Geo. & F. W. Hodson, Engrs., Westminster, London.——Bids for three reservoirs, etc., for the Halifax works are wanted until April 9. The new works will cost about $1,000,000. G. H. Hill & Sons, Engrs., 3 Victoria St., Westminster.

TAMPICO, MEX.—As a result of the recent fire, this city will organize and equip a fire brigade. Fire engines, etc., will be required. Address Director des Obras Publices.

CUBA.—The Cauto River Co. has been incorporated, with a capital of $1,000,000, to operate electric light, heat, power and gas plants in Cuba. Incorporators, Edwin M. Post, New York, and T. L. Dragaw, Jr.

HAVANA, CUBA.—H. M. Flagler, Pres. Florida East Coast Ry., New York and St. Augustine, Fla., and J. M. Ceballos, are reported as interested in a scheme to erect two hotels in Havana, to cost about $800,000. Theatres will also be built in connection with the hotels. Work, it is stated, will soon be begun. J. A. Wood, Arch., 191 Broadway, New York.

PARA, BRAZIL.—New water-works will soon be built by the municipality. Address the Director de Obras Municipales.

HONOLULU, H. I.—The contract for two centrifugal sewage pumps, with a capacity of 6,000 gallons a minute, and two direct-connected vertical engines, etc., has been let to the Lawrence Machine Co., Lawrence, Mass. Rudolph Hering, Engr., 100 William St., New York.

MANAQUA, NICARAGUA.—This municipality has made a contract with the Nicaragua Co., Ltd., London, through its representative, Thos. W. Wheelock, who now supplies the city with water, to install new works. The water will be secured from a different source, the Lake of Asososca. The works must be finished in 15 months.

SAN LUIS POTOSI, MEX.—It is stated that the Candelaria Mining Co. will soon install new machinery.

BERLIN, GERMANY.—The Siemens & Halske Co., of S. W. Markgrafenstrasse 94, this city, has purchased the waterfalls, with 19,000 HP., in Hardanger, Norway, with a view to erecting a carbide of calcium factory.

KOBE, JAPAN.—A new commercial society has been organized here and in Tokio by Count Inomye to reclaim the sea-front, to extend accommodations by constructing two piers, and building a railway to the piers, in this city. Later on the harbor of Kobe will be improved. It is stated that the government will furnish the capital, $747,000 for the Kobe improvements. Kazumasa Tsukuda, Supt. Customs, of this city, is interested.

ASUNCION, PARAGUAY.—A. A. Rutis, U. S. Consul, now in Philadelphia, Pa., is reported as making arrangements to perfect a contract with this government for the improvement of the harbor at this port, to cost about $2,000,000. Senhor Rutis will leave for South America in a few weeks.

HONOLULU, H. I.—The Hawaiian Transportation Co. has been formed, and W. W. McChesney & Sons, Queen St., are interested. The company has in use a gasoline schooner and have ordered another of 300 tons and several others will be purchased soon.

STOCKHOLM, SWEDEN.—The Kirunavara Iron Ore Mining Co., 7 Birger Jarlsgade, this city, will increase its capital $840,000, in order to enlarge its workings. G. E. Broms, Dir.

HAVANA, CUBA.—The Havana Telephone Co. has been organized, according to reports, to build a telephone system; capital stock, $500,000.

MONTEREY, MEX.—Reports state that Frank H. Cooper, ex-Judge S. P. Shope and Chas. T. Champion, Chicago, Ill., have formed a company to develop certain copper mines near here.

CONTRACT PRICES.

SEWERS.—Washington, Ga.—The following bids were received March 14, 1900, for building a system; (1) Irwin Bros., Greenville, O., total bid, $8,083; (2) O. H. Sheffield & Co., Atlanta, Ga., $7,385; (3) Guild & Co., Chattanooga, Tenn., $7,364; (4) Burkhalter & Co., Birmingham, Ala., $6,399; (5) W. W. Griffin, Atlanta, Ga., $5,979; (6) C. A. Robbe, Augusta, Ga. (accepted), $5,672; N. Wilson Davis, Engr.:

	1.	2.	3.	4.	5.	6.
12-in. pipe*.2,100 lin. ft..	$0.50	$0.42	$0.50	$0.37	$0.36	$0.37
10-in. " .3,070 " "	.40	.33	.40	.33	.32	.32
8-in. " .7,460 " "	.35	.31	.38	.29	.28	.22
6-in. " . 250 " "	.30	.26	.35	.25	.25	.20
10-in. pipe†. 700 " "	.55	.47	.50	.39	.38	.39
8-in. " . 900 " "	.45	.40	.40	.35	.34	.28
10-in. pipe‡. 260 " "	.65	.54	.55	.46	.42	.46
8-in. " . 800 " "	.60	.50	.43	.42	.37	.28
Brick in manholes.50 M.	15.00	13.00	12.00	12.00	9.00	12.00
Flushtanks . 5 each...	50.00	53.00	37.50	37.50	35.00	30.00
Mnhl covrs. 38 " ...	10.00	12.25	10.50	9.25	9.00	11.00
Solid rock . 100 cu. yds.	1.50	2.70	1.50	1.50	.75	1.00
Loose rock. 100 " "	1.00	.90	.50	.25	.35	.50
Concrete ... 10 " "	5.00	5.00	3.50	2.50	3.50	3.50

Depth of trenches: *8 to 10 ft., †10 to 12 ft., ‡12 to 14 ft.

WELL.—Needham, Mass.—The following bids were received March 8, 1900, for sinking a water-supply well, as advertised in Engineering News; L. E. Haines, Engr., Tremont Bldg., Boston:

Bidder.	Well, complete, 30 ft. deep.	Each additional foot— Below surface.	Each additional foot— Above surface.
Gow & Foss, Boston (accepted).	$4,811	$200.00	$33.00
C. M. Taylor, Wellesley, Mass.	4,900	200.00	70.00
Mirick & Wentworth, Malden..	6,600	300.00	30.00
Bruno & Salomone, E. Boston.	7,800	350.00	100.00

CEMENT, BROKEN STONE, ETC.—Fort Monroe, Va.—Maj. Jas. B. Quinn, U. S. Engr., Norfolk, Va., received the following bids March 17, 1900, for furnishing cement, broken stone, etc., (1) being for American cement, 750 bbls.; (2) Portland cement, 125 bbls.; (3) broken stone, 2-in., 600 cu. yds.; (4) broken stone, 1-in., 500 yds.; (5) granolithic broken stone 25 cu. yds.; The National Building Supply Co., Baltimore, (1) $1.25; B. Wallis & Co., Baltimore, (1) $1.25; (2) $2.55; McClenahan & Bro. Granite Co., Port Deposit, Md., (3) $1.99; (4) $2.21; (5) $2.55; Wm. Wirt Clarke & Son, Baltimore, (1) $1.35; (2) $2.60; Lawrenceville Cement Co., New York, (1) $1.10; (3) $1.56; (4) $1.56; Mayo & Rohrer Co., New York, (1) $1.15; (2) $2.60; (3) $1.54; (4) $1.54; (5) $1.54; Charles G. Smith & Son, Washington, D. C., (3) $1.97; (4) $2.17; (5) $2.48; Warner, Moore & Co., Richmond, Pa., (1) $1.05; (2) $2.40; Jac. Heffelfinger, Hampton, Va., (2) $2.45; S. H. Howes & Co., Richmond, Va., (1) $1.14; (2) $2.51; Benj. T. Pope, Baltimore, Md., (3) $2.15; (4) $2.15; (5) $3.50; Gamage & Waller, Norfolk, Va., (1) $1.10; (2) 2.45; General Supply Co. (Branch), Norfolk, Va., (1) $1.34¾; (2) $2.49¾.

WATER GATES AND HYDRANTS.—Reading, Pa.—The following bids were received by the water board March 20, 1900, for furnishing water gates and fire hydrants: Water Gates—Rensselaer Mfg. Co., 80 6-in., $12.95; 2 8-in., $16.80; 2 10-in., $28.70; 2 12-in., $28.70; 16 16-in., $83.60; 2 20-in., $130; 1 24-in., $137; 1 30-in., $174; 1 36-in., $343. Sixty Fire Hydrants.—Rensselaer Mfg. Co., $30.36 each; Kennedy Valve Co., $29.00 each; R. D. Wood & Co., $31.00 each; Reading Foundryl Co., $29.50 each; Cayuta Wheel & Foundry Co., $28.50 each; Michigan Brass & Iron Co., $26.50 each; Coffin Valve Co., $29.00 each. Ten Fire Hydrants, with independent nozzles, Rensselaer Mfg. Co., $43.00 each; Kennedy Valve Co., $39.50 each; R. D. Wood & Co., $40.85 each; Reading Foundry Co., $42.00 each; Cayuta Wheel & Foundry Co., $44.00 each; Michigan Brass & Iron Co., $39.50 each; Coffin Valve Co., $35.75 each. The contracts were let to the Rensselaer Mfg. Co. Bids for other water department supplies were given last week.

PIER WORK.—Frankfort, Mich.—The following bids were received March 15, 1900, for extension and repair of piers at Frankfort; (1) Robert Love, Muskegon, Mich.; (2) Nelson J. Gaylord, Ludington; (3) Smith & Nelson, Muskegon; (4) Green & Anderson, Green Bay, Wis.:

	1.	2.	3.	4.
Remvg work 652 lin. ft..	$2.00	$2.10	$1.75	$2.00
Dredging ... 700 cu. yds.	.75	.70	1.00	.65
Piles: Fndtn 2,176 lin. ft..	.50	.60	.50	.50
W. o., rnd 5,488 " "	.40	.40	.50	.40
W. o. timber 7,929 ft. B.M.	45.00	50.00	50.00	50.00
W.p. timber.232,047 " "	28.00	27.00	29.00	29.50
Hemlk tmbr.229,904 " "	23.00	23.00	22.00	23.50
W. p. plank. 21,005 " "	24.00	24.00	25.00	26.00
Drift bolts, 57,477 lbs.; screw bolts, 9,456 lbs.; tie rods, 6,971 lbs., spikes,1,584 lbs.	.04	.04	.04	.04
Stone filling.. 594 cords...	6.75	7.00	6.50	7.20
Edgings .... 10 cords...	3.00	4.00	3.00	4.00
Total	$24,832	$25,046	$25,307	$25,585

STREET DEPARTMENT SUPPLIES.—Boston, Mass.—The following contracts were let by B. T. Wheeler, Supt. Sts., on Feb. 20, 1900, for furnishing the street department with gravel, sand, paving blocks, etc.: Old Colony Sand & Brick Co., gravel, per double load for South Boston, $1.50; sand per double load, $1.36; for East Boston, $1.75 a load; for Dorchester, $1.45 for gravel and $1.50 for sand. P. O'Riorden, for Charlestown, $1.40 for gravel and $1.10 for sand; for city proper, Dist. No. 10, $1.30 for gravel and $1.10 for sand. J. A. Whittemore's Sons, for West Roxbury, $1.10 for gravel, $1 for sand. Thos. F. Welch, for Roxbury, $1 for gravel. C. J. Jacobs, for city proper, Dists. Nos. 8 and 9, $1.35 a double load for gravel and sand. Paving blocks (500,000 of Philadelphia size)—Rockport Granite Co., $56.90, also for 500,000 for large paving blocks, $59.60. Crosswalk Flagging, North River—J. J. Cuddihy, on wharves, 28½ cts. a sq. ft.; on streets or in yards, 31½ cts.; granite—S. & R. J. Lombard, on wharves, 29½ cts. a sq.ft.; on streets or in yards, 31½ cts.

PAVING BRICK.—New Haven, Conn.—The following bids were received March 21, for paving brick: The New York Brick & Paving Co., 1,000,000 to 3,000,000 Syracuse brick, $13.50 per M.; 3,000,000 to 5,000,000 brick, $13 per M. These bricks are guaranteed not to lay more than 70 to the square yard. The Eastern Paving Brick Co., Catskill brick, 1,000,000 brick, $14.50; 3,000,000, $14.40; 5,000,000, $14.30; not to lay over 58 to the yard. The Mack Mfg. Co., the Mack wire cut brick 1,000,000 to 5,000,000 brick, 59 to the yard, $18.50 per M. Pressed brick $20.50. Mack repressed groove brick, 42 to the yard $27.50 per M. For laying brick, Rice & Turner, Rondout, N. Y., Catskill brick, $1.96 per yard, or $1.02 per yard if the city furnishes the brick. C. W. Blakeslee & Son, New Haven, Catskill brick, $2.04½ per yard, or $1.17½ per yard if the city furnishes the brick. For Syracuse brick, $2.17½ and $1.17. Mack wire cut brick, $2.25 per yard and $1.13 if the city furnishes the brick. John A. Doolittle & Co., New Haven, for McMahon & Porter No. 1 brick, $2.15 per square yard and $1.08 if the city furnishes the brick. For No. 2 brick, $2.27 and $1.08. For repressed brick $2.32 and $1.08 per square yard. Lawrence O'Brien, Catskill or Barrington brick, $2.20 per yard, or $1.19 if the city furnish the brick. Thos. F. Maher, Catskill or Syracuse brick, $2.40 per yard, or $1.20 if the city furnishes the brick. The Abbott-

Gamble Contracting Co., New York, for Mack wire cut brick $2.23, or $1.14 if the city furnishes the brick. Mack block brick $2.30 and $1.14 if the city furnishes the brick. Mack repressed brick $2.23 and $1.14 if the city furnishes the brick.

ASPHALT PAVING.—Akron, O.—John W. Payne, City Engr., received the following bids March 10 for about 35,000 yds. of sheet or block asphalt paving; the bid for sheet or block asphalt by Gilsonite company and the Barber company is on a 6-in. concrete foundation; all other bids for 8-in. slag foundation:

Bids Received at Akron, O., March 10, 1900, for Asphalt Paving.

Quantities.	Gilsonite Roofing & Pav'g Co., St. Louis.	Barber Asphalt Paving Co., New York.	James McGowan, Akron.	George B. Hening, Mansfield.	S. W. Parshall, Akron.	J. J. McGowan, Akron.	Jas. Wildes & Son, Akron.	P. T. McCourt, Akron.
Excavation block asphalt .....11,860 cu. yds.	.....	.....	$0.30	$0.30	$0.20	$0.18	$0.22	$0.185
Berea curb .....10,872 lin. ft..	$0.41	$0.45	.37	.435	.45	.38	.41	.38
Medina curved curb ..... 276 " "	.50	1.00	.75	.59	1.25	.60	1.00	.70
Slag ballast ..... 6,900 cu. yds.	....	...	.90	.90	.95	.90	.75	.65
Block asphalt; without guarantee..24,954 sq. yds.	....	...	1.91	2.01	1.98	1.85	1.98	2.01
Block or sheet asphalt, 5-yr. guar.24,954 " "	1.30	1.74	1.96	2.09	2.04	1.90	2.03	2.06
" " " 10-yr. " .24,954 " "	1.50	1.85	2.31	2.46	2.40	2.25	2.38	2.41
" " " 15-yr. " .24,954 " "	1.80	2.60	2.91	3.11	3.10	3.00	2.98	3.01
Preparing street-car rail.....24,000 lin. ft..	....	...	.05	.035	.04	.05	.07	.06
Redress'g and resett'g old curb.... 785 " "	.11	.18	.10	.06	.15	.08	.20	.15
Total, no guarantee	.....	.....	$62,920	$65,687	$64,639	$60,059	$63,750	$62,708
" 5-year guarantee $59,371		$72,893	64,168	67,683	66,136	61,306	64,998	63,956
" 10-year " 64,362		78,133	72,902	76,916	75,120	70,040	73,732	72,689
" 15-year " 71,848		94,354	87,874	93,136	92,588	88,756	88,704	87,662

The Gilsonite Roofing & Paving Co. and the Barber Asphalt Paving Co., also submitted the following bids, respectively, for 10,000 yds. of excavation for sheet asphalt, 22 cts. and 24 cts.; concrete, 6 ins. deep, 38,226 yds., 52 cts. and 55 cts., and slag under street car tracks, 22 cts. and 95 cts. Bids were also received for paving in another streets, they being as follows where they differ from those given above: (1) being for 7,900 ft. of excavation for block asphalt, (2) for 1,162 ft. of Medina curb, (3) for 115 ft. of Medina curved curb, (4) for 3,935 yds. of slag ballast, (5) for 13,163 yds. of block asphalt, without guarantee, (6) for block asphalt with 5-year guarantee, (7) for 10-year guarantee, (8) for 15-year guarantee, (9) for preparing 13,400 ft. of street car rail: Gilsonite Roofing & Paving Co., (2) 40 cts.; Barber Asphalt Paving Co., (2) 45 cts.; Howard G. Herring, Mansfield, (1) 20 cts., (2) 53 cts., (3) 59 cts., (4) 80 cts., (5) $2.01, (6) $2.09, (7) $2.46, (8) $3.11, (9) 3½ cts.; J. J. McGowan, (1) 16 cts.; J. M. Davidson, Akron, (1) 22 cts., (2) 60 cts., (3) 75 cts., (4) 90 cts., (5) 90 cts., (6) $1.99, (6) $2.04, (7) $2.39, (8) $2.99, (9) 6 cts.; Jas. Wildes & Son, (1) 18 cts., (2) 67 cts.; P. T. McCourt, (2) 70 cts., (9) 7 cts.; S. W. Parshall, (2) 65 cts., (6) $2.03. P. T. McCourt was awarded the contract for the first mentioned work on 5-year guarantee at $63,956, and Wildes & Son for the second mentioned work on a 5-year guarantee at $33,926.

JETTY WORK, REMOVING BOULDERS, ETC.—Portsmouth, N. H.—Maj. W. L. Fisk, U. S. Engr., received the following bids March 14, 1900, for repairing jetties, removing boulders, dredging, etc., as advertised in Engineering News: Repairing Jetty at mouth of Saco River, Me.—Geo. W. Andrews, Biddeford, Me., $1.37 a short ton placed; Sylvester I. Hill, Chebeaque Isle, Me., $1.37; W. S. White, Rockland, Me., $1.53; F. Scripture, Rockport, Mass., $1.64. Dredging and removing boulders in Exeter River, N. H.—Augustus B. Martin, 19 High St., Boston, 54 cts. a cu. yd. for dredging and $10 a ton for boulders greater than 3 tons in weight; Simon J. Donovan, Winthrop, Mass., 57 cts., and $12. Dredging in Little Harbor, N. H.—Chas. H. Souther, 12 P. O. Square, Boston, 16⅞ cts. a cu. yd.; Eastern Dredging Co., 25 Congress St., Boston, 17¾ cts.; Harries & Letteney, 1017 Tremont Bldg, Boston, 17.7 cts.; S. J. Donovan, 24 cts. Dredging in Essex River, Mass.; Aug. B. Martin, 43 cts. a cu. yd., and $4 a ton for boulders over 3 tons.

SEWERS.—Brooklyn, N. Y.—The following bids were received March 21 for a sewer in 86th St., First, Ave., etc.:

Bids Received at Brooklyn, N. Y., March 21, 1900, for the Construction of Sewers, Etc.

Quantities.	James H. Holmes, 271 6th St.	Henry Hesterberg, 41 Grant St.	Jas. Malloy Co., Wilmington Del.	O'Brien & Sheehan, 253 B'way, N. Y.	Wm. Downey, 740 Jefferson Ave.	A. C. Glidersleeve, 39 Cortlandt St., N. Y.	J. J. Green, 799 Willoughby Ave.	John O'Grady 72 N. Sth St., N. Y.
48-in. brick sewer—Class A. 840 lin. ft..	$7.60	$6.00	$8.50	$6.25	$6.00	$6.50	$5.00	$5.30
42-in. " " —Class B.3,260 " "	6.10	4.90	6.50	5.75	4.75	5.50	4.85	4.85
36-in. " " —Class C.1,060 " "	5.50	4.50	6.50	4.75	3.75	5.50	4.20	4.00
30-in. " " —Class D. 603 " "	5.00	7.00	6.50	4.00	5.75	4.60	5.40	6.70
30-in. " " —Class E. 347 " "	5.00	4.00	6.50	7.25	3.25	4.60	3.60	3.75
24-in. vitrified pipe..... 380 " "	2.90	2.90	3.00	3.00	3.10	4.00	2.00	1.85
18-in. " " ..... 420 " "	1.66	1.80	2.25	2.00	2.00	3.00	2.00	1.85
15-in. " " ..... 240 " "	1.66	1.50	2.00	1.70	1.35	2.00	1.75	1.50
12-in. " " .....4,790 " "	1.45	1.20	1.85	1.50	1.20	2.00	1.40	1.27
Manholes ..... 112 each...	33.00	33.00	55.00	40.00	34.00	40.00	36.00	32.00
Catchbasins ..... 46 " ...	90.00	89.00	90.00	90.00	90.00	100.00	90.00	90.00
Foundation plank ..... 58 M. ft...	23.00	22.00	25.00	25.00	25.00	30.00	25.00	23.00
Additional mas'ry at portal 5 cu. yds.	5.00	13.00	5.00	12.00	12.00	10.00	15.00	1.00
Rip-rap fill at outlet..... 30 " "	30.00	1.00	3.00	2.00	3.00	2.00	1.00	1.00
Total $55,728		$48,520	$63,006	$53,720	$46,733	$57,360	$47,801	$47,259

GRADING, ETC.—New York, N. Y.—The following bids were received March 22 for grading, etc., in Hughes Ave., Bronx:

	Clark & Frannstoll, $63,700.	W. F. Murray, $51,588.	Thielmann & Smith, $68,004.	P. Handeboke, Jr., $56,520.	J. C. Rodgers, Jr., $68,444.	W. H. Masterson, $51,816.
Earth excav. ..2,600 yds.	.....	$0.69	.....	$1.00	$0.20	$0.25
Rock " ..5,600 "	$1.00	2.39	$1.25	1.00	1.50	.45
Filling .....58,200 "	.63	.25	.65	.60	.65	.45
Dry rub masry 407 "	2.00	2.69	1.50	1.50	2.00	1.50
New curb ....10,500 ft..	.57	.40	.60	.40	.55	.60
New flagging.42,150 "	.24	24.00	.25	.15	.22	.23
New bdg. stne.6,300 "	.50	.50	.55	.35	.60	.55
Lumber .....5,000 "	.50	.65	...	...	30.00	25.00
New fence ....4,450 "	.30	.21	.50	.01	.42	.50

CEMENT AND SAND.—Portsmouth, N. H.—Maj. W. L. Fisk, U. S. Engr., received the following bids March 23, 1900, for furnishing cement and sand; (1) being for 13,000 bbls. of Portland cement, and (2) for 5,000 cu. yds. of sand; all bidders of Boston: Bryant & Kent, 30 Kilby St., (1) Nazareth, $2.24; Boston Fire Brick Co., 164 Devonshire St., (1) Star, $2.28; Thos. W. Carter, 560 Albany St., (1) Vulcanite, $2.45; W. G. Nash, 220 State St., (1) Giant $2.20, (2) $1.58; Waldo Bros., 102 Milk St., (1) Atlas $2.24, (2) $1.42; Jas. H. Cahill, 174 Endicott St., (2) $1.55.

WATER DEPARTMENT SUPPLIES.—Worcester, Mass.—The following bids were received March 23, 1900, for furnishing certain water department supplies: Hydrants—Ludlow Valve Co., Troy, N. Y., $31 each for 48 6-in., and $57 each for 24 8-in.; Coffin Valve Co., Neponsett, $30.08 and $59.78, respectively; Kennedy Valve Co., New York, $34 and $80; Michigan Valve Co., Detroit, $30 and $68; Norwood Engineering Co., Florence, $35.36 and $55.39; Chapman Valve Co., Indian Orchard, $33.52 and $49.14. Gates, 175—Ludlow Mfg. Co., Troy, N. Y., $8,015; Rensselaer Valve Co., Troy, about $10,000; Michigan Valve Co., $6,925; Kennedy Valve Co., $7,439.50; Coffin Valve Co., $7,577.66; Eddy Valve Co., Waterford, N. Y., $6,700; Chapman Valve Co., $7,554. R. D. Wood & Co., Philadelphia, submitted the lowest bid for 2,400 tons of pipe. Prespey Pero submitted the lowest bid for 2,400 lbs of iron castings at 2¾ cts. a lb., and pay 75 cts. for such old iron as the department has.

CEMENT AND STONE.—Fort Hamilton (L. I.), N. Y.—The following bids were received March 15, 1900, for furnishing cement and broken stone: (1) being for cement in barrels; (2) same, in sacks, per bbl.; (3) for stone (trap), (4) for sand, a cu. yd; all bidders of New York, unless otherwise stated: Phoenix Towing & Transportation Co., (4) 33⅓ cts.; Manhattan Supply Co., (1) Star $2.17, (2) $2.34; Jacob E. Conklin, (3) $1.50; J. J. Donovan, (3) granite $1.57; Metropolitan Crushed Stone Co., (3) 95 cts.; Jos. D. Kidder, (3) $1.05; J. S. Lane & Son, Guttenberg, N. J., (3) 87 cts.; Manhattan Trap Rock Co., (3) 75 cts.; Harry Goodwin, (4) 34 cts; Hiram Snyder & Co., (1) Alpha or Lehigh $2.11, (2) 2.35; E. F. Rendt, Brooklyn, (4) 49¾ cts.; William Reinhart, (4) 47 cts.; Atlas Portland Cement Co (1) Atlas $2.14, (2) $2.34; John D. Miller, (3) 75 cts.; Sparrow, Friedenberg & Co. (1) Imported Hem. $1,947.

WELL.—Gloucester, N. J.—Geo. Pfeiffer, Camden, N. J., has been awarded the contract at $3.65 a ft. for sinking an 8-in. test well at the water-works, to determine the subterranean supply for increasing the capacity of the works.

ASPHALT PAVING.—Scranton, Pa.—The Barber Asphalt Paving Co. submitted the only bid March 17, 1900, for sheet asphalt on a 4-in. concrete base, at $2.25 per sq. yd; curbing at 55 cts. a lin. ft.; circular curb, $1.10 a lin. ft.; resetting curb, 10 cts. a ft.

PAVING.—Chicago, Ill.—The Barber Asphalt Paving Co. submitted the lowest bid March 14, 1900, for asphalt paving in Hyde Park, at $1.90 a sq yd. The usual price is $2.10 to $2.20. Total cost, about $40,000. Granite bids ranged from $3.35 to $4 a sq. yd. Brick prices ran from $1.87 to $2.20, which is about the range last year. Cedar pavement ranges from $1.65 up, while macadam pavement will cost from $1 to $1.20. Jos. Duffy also submitted a bid for asphalt in West Adams St., at $1.93; total, $85,000.

DOCK WORK.—Racine, Wis.—J. O. Jones, Racine, has been awarded the contract at $14.48 a lin. ft. for 931 ft. of dock work. P. H. Connolly, Cy. Engr.

PUBLIC LIGHTING.—St. Louis, Mo.—The 10-year contract for the lighting of the downtown streets and alleys of the city has been let to H. R. Budd, of Bunker Hill, Ill., at $11.60 per 1,000 arc lamp hours, and $2.35 per 1,000 incandescent lamp hours, according to reports.

ELECTRIC LIGHTING.—Asheville, N. C.—The Asheville Electric Co. has been awarded the 6-year contract for lighting this city, at $72.50 a light a year for arc lights. The former price was $85 a year a light.

SIDEWALKS.—Bridgeport, Conn.—The following bids were received March 14, 1900, for about 10,000 sq. ft. of cement-concrete sidewalk: W. A. Cole, Boston, 18 cts. a sq. ft.; G. G. Riggs, Waterbury, 16 cts.; C. W. Kellogg & Co., New Haven, 15 cts.; Silliman & Godfrey, Bridgeport, 15 cts.; Warren Bros., Boston (accepted), 13⅞ cts. Foundation—Good gravel or arches from factory; first course, 3 ins. of broken stone, concrete in proportion of 5 parts—2 parts stone, 3 parts sand—and 1 part approved brand Portland cement; second course, 1 in. of broken stone screenings in proportion of 2 parts of ½-in. screenings to 1 part cement. W. W. Starr, Clk. Bd. Park Comrs.

PAVING.—Atlanta, Ga.—The following bids were received March 19, 1900, for asphalt and brick paving: (1) entire work; (2) concrete by city; asphalt paving, Warren-Schauf Asphalt Paving Co., Whitehall St., (1 and 2) $2.34; Peter St., (1) $2.91; (2) $2.41; Nelson St., $2.91; Southern Paving & Construction Co., Peter St., (1) $2.83; (2) $2.33; Nelson St., $2.83; Whitehall St., (1) $2.77; (2) $2.29; W. S. P. Shields, (1) $2.63. Brick—Tennessee Paving Co., Whitehall St., (1) $2.67; (2) $2.23; Peter St., (1) $2.59; (2) $2.14; Nelson St., $2.64; John W. Sibley, Jr., Whitehall St., (1) $2.69; (2) $2.25; Peter St., (1) $2.62; (2) $2.18; Nelson, $2.69; if 5-year guarantee is used, 26 cts. less a sq. yd. Granite block—John Bradley, Whitehall St., (1) $1.79; (2) $1.24; Peter St., (1) $1.91; (2) $1.23; Nelson St., $1.79; using old stone on Peter St., $1.84. All on foundation 6 ins. deep.

LEVEE WORK.—New Orleans, La.—T. M. McLaughlin has been awarded the contract at $9.35 cts. a cu. yd. for 42,000 yds. of work in the Alice Levee, Lafourche district. Ernest Hyner has the contract for 84,000 yds. of work in the Devall and Cypress Hall levees, Atchafalaya district, at 15.47 cts. Col. G. McC. Derby, U. S. Engr.

INDUSTRIAL NOTES.

THE DODGE MFG. CO., Mishawaka, Ind., has removed its Atlanta, Ga., office from 40 S. Forsyth St. to 322 Prudential Building.

L. WILSON, 225 Dearborn St., Chicago, has a contract for an 8-in. well 1,250 to 2,000 ft. in depth for the city of Belvidere, Ill.

THE NEPTUNE METER CO., New York, announces the removal of its general offices to the works, Jackson Ave. and Crane St., Long Island City, N. Y.

THE PHILADELPHIA PNEUMATIC TOOL CO., Stephen Girard Building, Philadelphia, has opened a branch office in the Exchange Building, Boston.

THE CLEVELAND CITY FORGE & IRON CO., Cleveland, is reported about to ship a shaft 25 ft. long and 26 to 37 inches in diameter to the Glasgow St. Ry. Co., Glasgow Scotland.

A. O. NORTON, 167 Oliver St., Boston, announces that Harry A. Norton, Boston, is making an extended trip to Mexico and the Pacific Coast in the interest of the Norton ball bearing jacks.

G. W. ENOS, C. E., 27 William St., New York, has established the Contractors' Plant Depot and will devote his attention to the design, supply and installation of all kinds of contractors' machinery.

THE EPPING-CARPENTER CO., Pittsburg, has under construction and will soon ship to the Havana St. Ry. Co., Havana, Cuba, several large compound boiler feed pumps for use in the new power station now being constructed.

THE SIEGRIST LUBRICATOR CO., 117 Locust St., St. Louis, Mo., has a contract to equip all the machinery of the St. Joseph Ry., Light, Heat & Power Co., of St. Joseph, Mo., and the Milwaukee Harvester Co., of Milwaukee, Wis., with its Siegrist automatic oiling system.

M. T. DAVIDSON, New York, furnished the U. S. Army transport "Sumner," which sails this week from New York with a detatchment of troops for the Philippines, with the latest improved Davidson pumps and auxiliary condenser and two complete "Baird" fresh water distilling apparatus, each of 3,000 gallons daily capacity.

THE AMERICAN CLAY MFG. CO. has been incorporated in New Jersey, with a capital stock of $10,000,000, and has acquired 24 sewer pipe plants, claimed to represent over 80% of the industry in this country. Pres., Chas. Baird, Akron, O.; Vice-Presidents, R. M. Francy, Toronto, O.; Geo. R. Hill, Akron, O.; Secy., Thos. D. Brown, New Brighton, Pa.; Treas., Ulysses D. Eddy, 68 Broad St., New York; Asst. Secy. and Treas., E. M. Buel, Barberton, O.

THE WESTERN MACHINERY & SUPPLY CO., 159 La Salle St., Chicago, informs us that it is erecting a vibratory screening plant at Coronado, Cal., for the Coronado Beach Co., owners of the Hotel Del Coronado. The roads for several miles around are being paved and repaired with material from large clay banks, and it is at these banks that the plant is being erected. The screens make three separations and deliver the material into cars or wagons as needed. These screening plants were described in our issue of Oct. 19, 1899.

THE PITTSBURG FEED WATER HEATER CO., Pittsburg, was incorporated March 14, for the manufacture of feed water heaters, etc. Pres., James Bonar; Treas. and Gen. Mgr., J. E. Schlieper; Sec., Joseph Cawler. The sales department will be under control of James Bonar & Co., Pittsburg, as heretofore. The company will manufacture both the Pittsburg feed water heaters and purifiers and also the Pittsburg tubular feed water heaters. These heaters have been in use for the last six years. The Carnegie Steel Co. has installed over 50,000 HP. of them, and there are 500,000 HP. in use.

THE ROBINS CONVEYING BELT CO., New York, reports that its factory at Passaic, N. J., is now running at full capacity. The draughting room and general offices of the company have been installed in the north tower of the Park Row Building, 13-21 Park Row, New York. The two towers of this building comprise the 27th, 28th, 29th and 30th stories; consequently these are the highest offices in the world, the 30th story being 375 ft. from the sidewalk. The Robins Conveying Belt Co. cordially invites its friends to visit the new offices, from which a remarkable view of the Greater New York is obtained.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has received through a large Philadelphia exporting house the contract for 11 plate girder bridges, to be sent to foreign parts.——The company opened an office last week at Rooms 909 and 910 Stephen Girard Building, Philadelphia, to be in charge of Mr. L. H. Brumbaugh, who has been with the company for a number of years.——The company has increased its capital stock to $750,000 and has made extensive purchases of land at Pittsburg, Pa., where it will start a branch. Orders for the greater portion of the machinery equipment have already been placed and the company is now at work on the plans for the buildings, which will be designed and built at its own shops. It is intended that this plant shall be fully equipped for doing all classes of steel bridges and structural work, and it is claimed that the new plant will be one of the best of its kind in the country.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. All papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight Wednesday evening; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

If you want additional help, or to procure second-hand tools, machinery, plant, etc, try a "Want" card on page XXI

If you have anything to sell or to rent, we suggest that you advertise for a few weeks on one of our "For Sale" pages XXII-XXIII

If you want bids for doing any work, or for furnishing supplies, try an advertisement on a "Proposal" page XXV-XXVIII

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Obituary
ENGINEERI
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